

This is a digital copy of a book that was preserved for generations on library shelves before it was carefully scanned by Google as part of a project to make the world's books discoverable online.

It has survived long enough for the copyright to expire and the book to enter the public domain. A public domain book is one that was never subject to copyright or whose legal copyright term has expired. Whether a book is in the public domain may vary country to country. Public domain books are our gateways to the past, representing a wealth of history, culture and knowledge that's often difficult to discover.

Marks, notations and other marginalia present in the original volume will appear in this file - a reminder of this book's long journey from the publisher to a library and finally to you.

Usage guidelines

Google is proud to partner with libraries to digitize public domain materials and make them widely accessible. Public domain books belong to the public and we are merely their custodians. Nevertheless, this work is expensive, so in order to keep providing this resource, we have taken steps to prevent abuse by commercial parties, including placing technical restrictions on automated querying.

We also ask that you:

+ *Make non-commercial use of the files* We designed Google Book Search for use by individuals, and we request that you use these files for personal, non-commercial purposes.

+ *Refrain from automated querying* Do not send automated queries of any sort to Google's system: If you are conducting research on machine translation, optical character recognition or other areas where access to a large amount of text is helpful, please contact us. We encourage the use of public domain materials for these purposes and may be able to help.

+ *Maintain attribution* The Google "watermark" you see on each file is essential for informing people about this project and helping them find additional materials through Google Book Search. Please do not remove it.

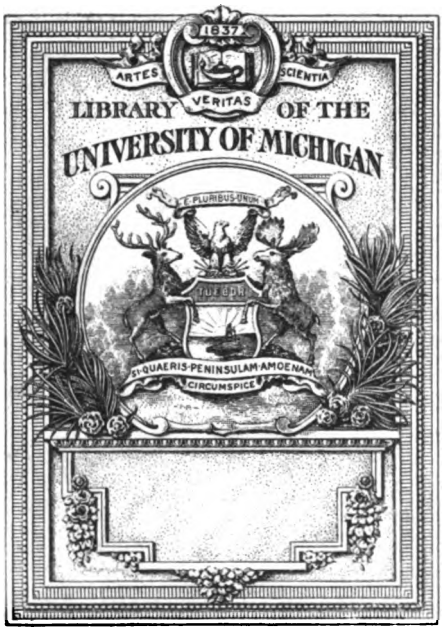
+ *Keep it legal* Whatever your use, remember that you are responsible for ensuring that what you are doing is legal. Do not assume that just because we believe a book is in the public domain for users in the United States, that the work is also in the public domain for users in other countries. Whether a book is still in copyright varies from country to country, and we can't offer guidance on whether any specific use of any specific book is allowed. Please do not assume that a book's appearance in Google Book Search means it can be used in any manner anywhere in the world. Copyright infringement liability can be quite severe.

About Google Book Search

Google's mission is to organize the world's information and to make it universally accessible and useful. Google Book Search helps readers discover the world's books while helping authors and publishers reach new audiences. You can search through the full text of this book on the web at `http://books.google.com/`

B 3 9015 00206 268 8
University of Michigan – BUHR

Digitized by Google



Digitized by Google

610.5
A94

Digitized by Google

Digitized by Google

Digitized by Google

Digitized by Google

THE AUSTRALASIAN

MEDICAL GAZETTE:

12 5 5 39

The Journal of the Australasian Branches of the British Medical Association.

EDITED FOR THE PROPRIETORS BY

GEORGE E. RENNIE, M.D., Sydney, N.S.W.

And for the other Branches of the British Medical Association by

A. B. BROCKWAY, Brisbane, Q.; H. W. BRYANT, Williamstown, Vic.;

H. SIMPSON NEWLAND, Adelaide, S.A.; HERBERT HORROCKS, Perth, W.A.

VOL. XXII.

FROM JANUARY TO DECEMBER, 1903.

Sydney:

Published by the New South Wales Branch of the British Medical Association, at 121 Bathurst Street, Sydney.

1903.

Digitized by Google

Digitized by Google

INDEX.

Page

Abdominal Surgery, Anæsthesia in... 10
Abdominal Operations During Pregnancy, by E. T. Thring, F.R.C.S. 547
Abscess of Temporo-Sphenoidal Lobe, Operation, Recovery, by T. S. Kirkland, F.R.C.S. 569
Addison's Disease, Clinical Signs and Pathological Changes in a Case of, by R. Scott Skirving, M.B. (Edin.) and Prof. Welsh, M.D. (Edin.) 493
Advertising Columns 231
Albuminuria in Parturient Women, by A. Watson Munro, M.D., F.R.C.S. 257
Albumosuria, Myelopathic, by J. C. Verco, M.D., F.R.C.S. 185
Anæsthesia in Abdominal Surgery, by F. J. T. Sawkins, M.B., Ch.M. 10
Aneurism of the Transverse Aorta, by L. Henry, M.D. (illustrated) ... 451
Angio-Sarcoma of Thigh, simulating Hip Disease, by L. W. Bickle, F.R.C.S. 17
Aorta and its Valves, Syphilitic Disease of, by J. B. Cleland, M.D. 68
Aphasia as a Result of Heat Exhaustion, by R. E. Weigall, M.B. 297
Appendicitis without Symptoms, by R. Jones, L.R.C.P.S. 804
——— Two Hundred Cases of, by H. C. Hinder, M.B., Ch.M. 401
——— Unusual Cause of, by J. L. Beeston, L.R.C.S., L.K.Q.C.P. ... 517
Appendix Vermiformis of Unusual Size, by C. E. Todd, M.D. 207
Arthur, R., M.D., Paraffin Wax in Facial Deformities (illustrated) .. 255
Aural Discharges, by W. H. Robertson, M.B. 561

Backache, Common Causes of, by Geo. Cuscaden, L.R.C.P. 566
Bancroft, T. L., M.B., Notes on Filaria and Mosquitoes 251
Barrington, F., M.S., F.R.C.S., Hydroperitoneum in Pelvic Disease 5
Battle of the Clubs 543, 591
Beattie-Smith, W., F.R.C.S., Insanity, its Relation to Practitioner, Patient and the State 47
Beeston, J. L., L.R.C.S., L.K.Q.C.P., Unusual Cause of Appendicitis 517
Beeston, J. L., L.K.Q.C.P., Cæsarean Section 567
Belgrave, T. B., M.D., Pathogenesis and Prophylaxis of Typhoid and Malaria in the North-West 60
Bickle, L. W., F.R.C.S., Angio-Sarcoma of Thigh, simulating Hip Disease 17
Binney, E. H., M.B., Ch.M., Some Cases of Puerperal Septicæmia 512
Births, Marriages and Deaths, 46, 90, 134, 184, 234, 282, 332, 386, 440, 492, 546 600
Bladders, Male and Female, Large Stones Removed from (illustrated), by R. Jones, L.R.C.P. 19
Books Received 46, 90, 134, 234, 282, 332, 386, 440, 492, 546
Brady, A. J., L.K.Q.C.P., Case of Cerebellar Abscess 247
Breast, Three Cases of Scirrhus of the, by R. Scott, M.D., Ch.M. 410
British Medical Association News: New South Wales, 26, 119, 165, 214, 264, 313, 364, 420, 469, 523 577

B.M.A. News—*Continued* Page
Council Meetings, 77, 165, 168, 215, 265, 314, 365, 422, 471 579
Victoria, 28, 169, 216, 265, 315, 423, 526
West Australia, 30, 219, 265, 367, 424, 472 582
Ballarat 75, 218, 366, 472
Queensland, 76, 120, 169, 219, 266, 315, 424, 472, 525 581
South Australia, 119, 218, 266, 314, 366, 424, 468, 525 579
New Zealand 220
Bronchus, Foreign Body in, Tracheotomy, by H. Busby, M.B., Ch.M. 104
Bullet Wound, a Peculiar, by H. Cox, M.B. 67
Busby, H., M.B., Ch.M., Foreign Body in Bronchus-Tracheotomy... 104
Byrne, W. S., M.D., Post-Operative Suppression of the Urine 151
———Hysterectomy for Puerperal Infection 414

Carcinoma, Columnar-celled of Cæcum; excision, closure of both ends of intestine; lateral anastomosis of ileum with transverse colon; recovery. By R. A. Stirling, M.D. 346
Cæsarean Section, by J. L. Beeston, L.K.Q.C.P. 567
Cerebellar Abscess, by A. J. Brady, L.K.Q.C.P. 247
——— Failure of Respiration during Operation; recovery. By J. H. Phipps, M.B., M.R.C.S. 245
——— of Otitic Origin, by G. T. Hankins, M.R.C.S. 243
Champion, E., M.B., Ch.B., Hæmorrhage in the Newly Born 355
Chloroform, Causes and Prevention of Death from, by W. B. Vance, M.B. 141
Cleland, J. B., M.D., Syphilitic Disease of Aorta and its Valves 68
Correspondence: Special—
London 31, 125, 172, 225, 271, 318, 372, 430, 478, 527, 581
Victoria 80, 173, 273, 374, 529
South Australia 173, 480
Queensland 226, 422, 529
Tasmania 374, 431, 584
Western Australia 589
Correspondence:
Tonic Contraction of the Uterus, 33, 81, 127, 174
Preventive Inoculation against Plague in Australia 33
The Doctor's Holiday 80
Dermoid Cyst of the Upper Jaw... 127, 228
Dental Hospital of Sydney 127
Antitoxin in Diphtheria 127
Battle of the Clubs 129
Remuneration of Medical Witnesses 174, 274
Emergency Practice in the Country 227
State Children, Medical Attendance on 227
Infectivity of Pulmonary Consumption 227
Pulmonary Tuberculosis, Treatment by Application of High Frequency Currents 273
Leucocytosis, Simplified Method of Accurately Estimating Degrees of 273
A Query 274
Sterilisation of Ligatures and Sutures 320

Correspondence—*Continued* Page
The Medical Profession and the Australian Natives' Association 376
Hyoscine Hydrobromide as a Preventive for Vomiting after Chloroform Anæsthesia 433
President's Official Costume N.S.W. Branch B.M.A. 433
N.S.W. Medical Union 480
Olla Podrida 481, 531
Paroxysmal Neuroses and Hypnotic Suggestion 530
Mechanism of the Paroxysmal Neuroses 596
Preservatives in Food 591
Cox, H., M.B., A Peculiar Bullet Wound 67
Cuscaden, Geo., L.R.C.P., Common Causes of Backache 566
Cyst, Dentiferous and other Abnormalities in Aboriginal Skull, by J. MacPherson, B.Sc., M.B. 156

Diabetes, by C. Reissmann, M.D. (Camb.), B.Sc. 340, 393
Diphtheria and Sore Throat, Report on an Outbreak due to Milk Contaminated by Persons showing no Clinical Manifestations of either Morbid Condition, by E. S. Stokes, M.B., Ch.M., D.P.H. 482

Editorials:—
The Doctor's Holiday 23
Hospital Endowment 24
Food Adulteration 72
Typhoidal Infections 72
Sanatorium Treatment of Pulmonary Consumption 115
Infantile Mortality in New South Wales 116
Preliminary Education of Medical Students 161
Spinal Neurosis 162
The Coroner, the Medical Man, and the Pathologist 210
Remuneration of Medical Witnesses 211
Medical Practice in Modern Days 260
Etiology of General Paralysis of the Insane 260
Failure of Quarantine, the 308
Modern Prescribing 309
The Declining Birth Rate 360
The Spread of Typhoid Fever 361
The Diagnosis of Diphtheria 416
Women Doctors 417
Contract Medical Practice 464
Preservatives in Food 465
The Mechanism of the Paroxysmal Neuroses 519
The Increase in Insanity 520
Preservatives in Food 572
Hospital Maintenance 572
Electric Currents of High Frequency and High Tension, Action in Chronic Pulmonary Tuberculosis, by W. R. Fox, L.R.C.P. (illustrated) 235
Elkington, J. S. C., M.D., D.P.H., Fleas and Plague Convection 348
Epsom Royal Medical Benevolent College 179
Ether Anæsthesia, two Cases of Death from, by S. Jamieson, M.B., C.M. 15
———Anæsthesia in Children, by R. B. Wade, M.B. 149

Digitized by Google

Page

Ferraresi's Tenoplasty for Fracture of Patella, by T. Fiaschi, M.D., Ch.D. (illustrated) ... 345
Fiaschi, T., M.D., Ch.D., Ferraresi's Tenoplasty for Fracture of the Patella (illustrated) ... 345
Filariasis, Notes on, by J. Flynn, L.R.C.P. ... 248
Filaria and Mosquitoes, by T. L. Bancroft, M.B. ... 251
Finsen Light Treatment for Lupus, by H. S. Newland, M.B., F.R.C.S. 201
Flynn, J., L.R.C.P., Notes on Filariasis ... 248
Fox, W. R., L.R.C.P., Electric Currents of High Frequency and High Tension, their Action in Chronic Pulmonary Tuberculosis (illustrated ... 235

Gallstones, Diagnosis and Surgical Treatment of, by C. S. Hawkes, M.R.C.S. ... 193
Gangrene, Spreading Traumatic, by E. M. Pain, M.B., Ch.M. ... 156
Gastric Surgery, by W. Anstey Giles, M.B., C.M. (Edin.) ... 460
——— Surgery, by R. Humphrey Martin, M.B., B.C. (Cantab.), M.R.C.S ... 457
Gault, A.H., M.D., Pneumothorax ... 506
Genu Recurvatum, Congenital, by T. W. Lipscomb, M.B., Ch.M. ... 568
Gestation, Ruptured Tubal, by F. J. T. Sawkins, M.B., Ch.M. ... 20
Giles, W. Anstey, M.B., C.M. (Edin.), Surgical Treatment of Senile Enlargement of the Prostate ... 407
——— Notes on Gastric Surgery ... 460
Gillies, Sinclair, M.D. (Lond.), Case of Recurrent Paralysis of Third Nerve ... 394
Gonorrhœa in the Female, by C. MacLaurin, M.B., C.M. (Edin.) ... 507
Gout, Note on Treatment of, by A. Money, F.R.C.P. ... 69
Griffiths, F. G., M.B., Simplified Method. Accurately Estimating Degrees of Leucocytosis ... 153
Gynæcological Cases, by H. Throsby, M.B. ... 64

Hæmorrhage in the Newly Born, by E. Champion, M.B., Ch.B. ... 355
——— by Edith Ure, M.B., Ch.M. 517
Ham, B. B., M.D., Ptomaine Poisoning ... 91
Hamilton, J. A. G., M.B., Nymphomania, Division of Pudic and Inferior Pudendal Nerves ... 205
Hamilton, A. A., M.B., B.Ch., Presidential Address ... 291
——— Chronic Nephritis with Ascites and Repeated Paracentesis ... 502
Hankins, G. T., M.R.C.S., Cerebellar Abscess of Otitic Origin ... 243
Hardy, C. H. W., M.B., Ch.B., Surgical Gleanings ... 109
——— Sarcoma of Superior Maxilla ... 206
Hare, F., M.D., Mechanism of Paroxysmal Neuroses ... 283, 333, 387, 441
Harris, L. H., M.B., Ch.M., Skiagraphic Notes ... 105
——— Skiagram of the Human Lung ... 298
Hayward, W. T., M.R.C.S., Pneumothorax due to Pulmonary Hydatid ... 505
Hawkes, C. S., M.R.C.S., Diagnosis and Surgical Treatment of Gallstones ... 193
——— The Mechanism of Trigeminal Neuralgia ... 497
Hawthorne, E.S., L.R.C.P., F.R.C.S., Vaccination after Smallpox ... 207
Hemiplegia, Crossed and Convulsions in an Infant, by H. G. Holmes, M.B. ... 155
Henry, L., M.D., Aneurism of the Transverse Aorta (illustrated) ... 451

Page

Hernia, Incidence, Symptoms and Treatment of Strangulated, in the Aged, by Chas. MacLaurin, M.B., C.M. ... 2
——— Radical Cure of, in Elderly People, by C. MacLaurin, M.B., C.M. ... 252
——— Radical Cure of Umbilical, by C. E. Todd, M.D. ... 411
Hinder, H. C., M.B., Ch.M., Four Cases of Suppression of Urine ... 197
——— Two Hundred Cases of Appendicitis ... 401
Holmes, H. G., M.B., Ch.M., Crossed Hemiplegia and Convulsions in an Infant ... 155
Hospital Intelligence 5, 18, 22, 43, 81, 130, 154, 181, 201, 230, 279, 251, 329, 381, 435, 488, 542, 596
Hydatids, The Protean Method of, by A. S. Joske, M.B., Ch.M. ... 406
Hydroperitoneum in Pelvic Disease, by F. Barrington, M.S., F.R.C.S. 5
Hysterectomy for Puerperal Infection, by W. S. Byrne, M.D. ... 414
——— Some Cases of, by J. T. Mitchell, M.D., M.R.C.S. ... 510

Insanity: Its Relation to Practitioner, Patient and the State, by W. Beattie-Smith, F.R.C.S. ... 47
Insane in Victoria, Treatment of ... 179
Insanity in Australia:
New South Wales ... 537
Queensland ... 538
South Australia ... 538
West Australia ... 539
Intertrigo, Case of Diphtheritic, by W. F. Litchfield, M.B. ... 357
Icterus Neonatorum, Fatal, by A. A. Lendon, M.D. ... 565

Jamieson, S., M.B., C.M., Two Cases of Death from Ether Anæsthesia ... 15
Jamieson, Jas., M.D., Typhoid in Hobart and Melbourne, Influence of Drainage on ... 56
Jamieson, S., M.B., C.M., The Blood in Pneumonia ... 102
Jay, M. R., M.R.C.S., L.R.C.P., Macroglossia ... 354
Johnson, E. A., M.D., Myiasis of a Pharyngeal Divertikel ... 19
Jones, R., L.R.C.P., Large Stones Removed from Male and Female Bladders (illustrated) ... 19
——— Appendicitis without Symptoms ... 304
Joske, A. S., M.B., Ch.M., The Protean Method of Hydatids ... 406

Kidney, Gangrene of the, by R. E. Weigall, M.B. ... 515
Kirkland, T. S., F.R.C.S., Abscess of Temporo-Sphenoidal Lobe, Operation, Recovery ... 569

Lendon, A. A., M.D., Fatal Icterus Neonatorum ... 565
Launceston (Tas.): Smallpox Epidemic ... 595
Letters and other Communications Received ... 134, 184, 234, 282, 332, 440, 492, 546
Leucocytosis, Simplified Method, Accurately Estimating Degrees of, by F. G. Griffiths, M.B. ... 153
Lipscomb, T. W., M.B., Ch.M., Congenital Genu Recurvatum ... 568
List of Members of the New South Wales Branch of British Medical Association ... 601
Litchfield, W. F., M.B., Case of Diphtheritic Intertrigo ... 357
——— Case of Widespread Interstitial Myositis in a Child ... 516

Page

Lupus, Finsen Light Treatment for ... 201
Lymphadenoma or Lympho-Sarcoma, presenting some unusual features, by J. M. Mason, M.D., D.P.H. ... 504

Macdonald, T. F., M.B., C.M., Snake Bite ... 257
Mackinnon, R. R. S., M.B., Ch.M., Two Cases of Acute Tetanus Treated with Antitoxin, Recovery 356
MacLaurin, Chas., M.B., C.M., Incidence, Symptoms, and Treatment of Strangulated Hernia in the Aged ... 2
——— Radical Cure of Hernia in Elderly People ... 252
——— Gonorrhœa in the Female ... 507
McKay, W. J. S., M.B., Ch.M., B.Sc., Excision of Rectum by Methods of Kraske and Quenu ... 254
MacPherson, J., B.Sc., M.B., Dentiferous Cyst and Other Abnormalities in Aboriginal Skull ... 156
Macroglossia, by M. R. Jay, M.R.C.S., L.R.C.P. ... 354
Maitland, H. L., M.B., Ch.M., Perineal Prostatectomy ... 300
Martin, R. H., M.B., B.C. (Cantab.), M.R.C.S., Gastric Surgery ... 457
Mason, J. M., M.D., D.P.H., Case of Lymphadenoma or Lympho-Sarcoma, presenting Some Unusual Features ... 504
Measles with Nephritis, by E. E. Moule, M.B. ... 358
Medical Appointments 45, 89, 134, 184, 233, 281, 331, 385, 439, 491, 545, 600
Medico-Ethical and Medico-Legal ... 130, 181, 230, 274, 379, 437, 487
Medical Matters in Parliament ... 378, 434, 488, 597
Medical Notes: The Antiseptic Shaving Saloon, 9; Scarlet Fever Antitoxin, 22; Resection of the Cervical Sympathetic, 33; Charitable Donations, 45; A Royal Physician, 45; An Obstinate Hospital Patient, 63; Charitable Donations, 89; Presidents of the Sydney Hospital, 89; Queen Victoria Homes for Consumptives, 89; Zetz-Spa Water, 89; Powdered Milk, 89; Board of Directors Sydney Hospital, 89; Anniversary Children's Ward Alfred Hospital, Melbourne, 89; National Trustees Co. and Executors of the late Dr. Hulbert Williams, 114; Medical Directory for 1903, 125; Professional Incomes in Paris, 125; Measles in Fiji, 160; Triennial Osiris Prize of 100,000 francs, 160; the Birth Rate, 174; Rockefeller Institute, 178; Aspirin as an Analgesic in Carcinoma, 220; Cigarette Smoking, 224; Australian Natives' Association, 232; Melbourne University Matriculation, 232; Yersin Serum for Plague, 232; Whooping Cough, against taking children to doctor's homes, 232; Plague in India, 232; Measles in Fiji, 232; Non-notification of Infectious Diseases, 232; Mr. J. Russell French to be a Trustee Prince Alfred Hospital, Sydney, 232; Syphilis, the Transmission of, made a Penal Offence, 255; Charitable Donations and Bequests, 259, 275, 331, 383, 437; Hon. Dr. C. K. Mackellar, Stained-glass window unveiled in memory of his son, 304; Dr. Millard's Report on Site for New Hospital at Gundagai, N.S.W., 312; Cremation in Scotland, 324; Röntgen Ray Apparatus Demonstration at Sydney Hospital, 331; Campbell Conspiracy Case, 331; Adelaide Dental Board, 331; James Brown Memorial Trust, Adelaide, 331; Government Grants to Hospitals, 331; Rockefeller

Digitized by Google

Medical Notes—*Continued* Page
Medical Institute, 331; The New Commonwealth Military Regulations for Medical Attendance, 346; the Metal Radium, 380; Home for Destitute Invalids, Sydney, 383; Old Age Pensions, 383; Government Asylums, N.S.W., 383; Melbourne Hospital Committee, 384; Horsham District Hospital, Vic., 384; Fish Sausage, 384; District Nursing Association, N.S.W., 384; Woman's Branch of A.N.A., 384; Child Study Association, 437; Perth Hospital Board against the Appointment of a Lady Doctor, 437; Melbourne District Nursing Society, 437; All-Metal Hypodermic Syringe, 437; Ermelo Nursing Home, Newtown, Sydney, 437; Ill Effects of Boric Acid, 438; New South Wales Lodge Practitioners' Defence Fund, 438; the Ramsay Smith Case, 438; Adelaide Hospital Rules, 438; Erratum, 438; St. Vincent's Hospital, Melbourne, League to Raise Funds, 462; Mosquito Plant, High Expectations Formed, Baseless, 468; Infantile Mortality from Diarrhœa, Formula circulated, 503; the A.N.A. in Court, 531; Plague in Queensland, 535; Consumption, South Australian Branch of National Association, for Prevention, 543; Charitable Bequests and Donations, 544; St. Luke's Day at St. Andrew's Cathedral, Sydney, 544; Hospital Saturday, Sydney, 544; Royal North Shore Hospital, Sydney, 544; Smallpox Epidemic, Launceston, 544; Queen Victoria Memorial Fund, 544; Hospital Collections, Melbourne, 544; Home for Cripples, Adelaide, 544; Nurses Trained at Melbourne Hospital, 544; Queen Victoria Homes for Consumptives, N.S.W., 544; Odontological Society, 598; Angus & Robertson's Medical and Surgical Books; 598; Messrs. Parke, Davis & Co.'s Aseptic Vaccine (Glycerinated), 598; Appreciation of Late Mr. Maurice Salmon, 598; Charitable Bequests and Donations, 598; Report of the Charitable Grants Department of Tasmania, 598; Sydney Medical Mission, 598; the Open Air Treatment in New Zealand, 598; Sanatoria for Female Consumptives, 598; Dr. Chas. Peabody and W. K. Moorehead, Director and Curator Archaeological Museum, Phillips-Andover Academy Research at Kentucky, 599; Chemist Fined for not Reporting Case of Scarlet Fever, 599; A Cargo (N.S.W.) Resident Fined Under the Medical Practitioners' Act 599

Military Intelligence, 44, 181, 231, 279, 331, 383, 434, 531

Mirror of Hospital Practice:
Peak Downs Hospital, Queensland, Case of Concurrent Jejunal Obstruction and Appendicitis, by H. Zwar, M.B., Ch.B. 20
Prince Alfred Hospital, Sydney, Ruptured Traumatic Aneurism of Subclavian Artery, by H. C. Hinder, M.B., Ch.M. 69
Adelaide Hospital, S.A., Disseminated Carcinoma, resembling Hodgkins' Disease (Malignant Lymphadenoma), by L. W. Bickle, F.R.C.S. (illustrated) 157
Brisbane Hospital, Queensland, Two Cases of Enlargement of Prostate Gland, Freyer's Operation Performed, by S. S. Jackson, M.B., Ch.B. 305
Fistula between Portal Vein and Hepatic Duct Associated with Gallstones, by E. W. Moncrieff, M.B., Ch.M. 413

Page
Mitchell, J. T., M.D., M.R.C.S., Some Cases of Hysterectomy 510
Molluscum Fibrosum, Case of (illus.) by G. B. Sweet, M.B., Ch.M. 18
Money, A., Note on Treatment of Gout 69
Month, The: Special Notice to Members of the N.S.W. Branch of the British Medical Association, 24; A Medical Defence Fund, 24; The Examination System, 25; Civilisation and the Decreased Birth-rate, 25; An Interesting Document, 25; Treatment of the Insane in Melbourne, 25; Sir T. Lauder Brunton, 26; Economy in the Melbourne Hospital, 26; Institute of Colonial Medicine in Paris, 26; the Training of Nurses, 26; Rats in Melbourne, 26; Special Notice to Members of New South Wales Branch of the British Medical Association, 74; Medical Profession and Friendly Societies, 74; Crematorium at Adelaide, 74; Tuberculosis in Victoria, 74; South Australia Medical Veterans, 74; Overcrowded Asylums, 75; Treatment of Consumptives, 75; Lodge Practitioners' Defence Fund, 75; Annual Meeting of New South Wales Branch of the British Medical Association, 117; Public Abattoirs for Adelaide, 117; Use of Antitoxin in Diphtheria, 117; New Women's Hospital for Sydney, 117; Sydney Civil Ambulance and Transport Brigade, 117; Prevention of Consumption in Victoria, 118; Proposed Hospital for Consumption in Sydney, 118; Australian Natives' Association for Women, 118; Women Doctors, 118; Medical Registration in Queensland, 162; Arbitration Court and the Milk Supply, 163; Brisbane Hospital Finances, 163; Infectious Diseases Hospitals in Melbourne, 163; Chloroform v. Ether, 163; Hobart Metropolitan Drainage Scheme Approved, 164; Hope for the Consumptive, 164; Austin Hospital for Incurables, Melbourne, 164; Australian Natives' Association in Queensland, 164; Treatment of Inebriety, 211; Method of Increasing Hospital Revenue, 212; Hostel for Nurses, 212; Queen Victoria Homes for Consumptives, New South Wales, 212; Cremation in South Australia, 212; Medical Curriculum in Melbourne, 212; Memorial to late Dr. Pinnock, 213; Hospital Saturday, 213; Australian Natives' Association and N.S.W. Friendly Societies' Association, 213; A Warning to Applicants for Medical Officer, Foresters' Lodge, 213; Bubonic Plague, 213; Child Study, 261; Inebriety in New South Wales, 262; Sanatorium Treatment of Pulmonary Tuberculosis, 262; British Scientific Party for the Pacific Islands, 262; Infectious Diseases Hospital for Hobart, 262; Clinical Teaching in Melbourne, 262; Insanitary Country Hotels, 262; New South Wales Hospital Saturday Fund, 263; Fight against Tuberculosis in South Australia, 263; Septic Ward at the Women's Hospital, Melbourne, 263; Infectious Diseases Hospital in Melbourne, 263; the Founders of Prince Alfred Hospital, Sydney, 310; Preservatives in Food, 310; Hospital for Consumptives in Adelaide, 310; Adulteration of Wines, 311; Proposed Maternity Hospital in Hobart, 311; Increase of Insanity in Tasmania, 311; Neglected Children, 312; Literary Course for Hospital

Month, The—*Continued* Page
Nurses, 312; Proposed Home for Incurables, 362; Expectorating in Railway and Tramway Carriages, 362; Cancer Research, 362; Suicide in the Medical Profession, 362; Government Maintenance of Consumptives, 363; Country Life and Lunacy, 363; Treatment of Tuberculosis in South Australia, 363; Coroner v. Doctor, 363; Decreased Birth Rate, 364; Infectious Diseases Hospital, Melbourne, 364; British Medical Association and the A.N.A., 418; the Asylum Inquiry, 418; Proposed Crematorium for Sydney, 418; Morphia Supplies to Inmates of Asylums, 418; Notification of Pulmonary Tuberculosis, 419; Prevention of Consumption in Queensland, 419; Compulsory Vaccination Bill for New South Wales, 419; Royal Commission into Birth Rate, New South Wales, 420; Protection of Children, 420; the Norton Manning Memorial, 420; New South Wales Branch of the B.M.A. and the Women's A.N.A., 466; Use of Antiseptics in Food in New South Wales, 466; Bloodless Surgery, 466; Antiseptic Surgery in the Eighteenth Century, 467; Friendly Societies in New South Wales, 467; Prevention of Consumption in South Australia, 467; Maintenance of Sanatoria for Consumptives, 467; Inspection of Private Hospitals, 468; the Cyclopædia of New South Wales, 468; Civil Ambulance and Transport Brigade of New South Wales, 521; Food Adulteration in America, 521; Sanatorium Treatment of Pulmonary Tuberculosis in South Australia, 521; Sanatorium for Consumptives in Western Australia, 522; Infected Oysters, 522; Sanitary Hairdressing, 522; Bookwood and Newington Asylums, 522; the Sydney City Coronership, 574; the Illness of the German Emperor, 574; Charitable Institutions of Victoria, 574; Bacteria in Milk, 575; Sydney Water Supply, 575; Scientific Expedition to New Guinea, 576; the late Sir Charles Nicholson, 576; a Reception by Dr. D. A. Greaswell, President of the Victorian Branch of the British Medical Association 576
Morphia Tablets: Are They Reliable, by C. Reissmann, M.D., B.C. (Camb.) 1
Moule, E. E., M.B., Measles with Nephritis 358
Munro A. Watson, M.D., F.R.C.S., Albuminuria in Parturient Women 257
Myiasis of a Pharyngeal Divertikel, by E. A. Johnson, M.D. 18
Myositis, Case of Widespread Interstitial, by W. F. Litchfield, M.B. ... 516

Nephritis, Chronic, with Ascites and Repeated Paracentesis, by A. A. Hamilton, M.B., Ch.B. 502
Nerve, Case of Recurrent Paralysis of, by Sinclair Gillies, M.D. (Lond) 3 4
Neuralgia, the Mechanism of Trigeminal, by C. S. Hawkes, M.R.C.S. 497
Neuroses, Mechanism of Paroxysmal, by F. Hare, M.D. 283, 339, 387, 441
New Inventions 82
New Pharmaceutical Products 425
Newland, H. S., M.B., F.R.C.S., Finsen Light Treatment for Lupus 201
Nisbet, Major W. B., Surgical Experiences during the South African War 550
Nymphomania, Division of Internal Pudic and Inferior Pudendal Nerves, by J. A. G. Hamilton, M.B. 205

Digitized by Google

Page

Obituary: Elsey Fairfax Ross, M.D., M.R.C.S., L.R.C.P. ... 38
Emma Constance Stone, M.D., ... 39
Dr. Maurice Cotton D'Englesqueville ... 39
Robert John Allan, L.R.C.P., ... 39
Charles Michael Rorke, L.K.Q.C.P. 77
Leslie Frank Bucknell, F.R.C.S. ... 77
Francis William Home Popham, L.R.C.P., M.R.C.S. ... 77
Margaret Isabel White, M.B., Ch.M. 125
Angus McLeod, M.D. ... 125
Morgan Thomas ... 171
William John Walker, M.B., Ch.M. 171
Richard Ryther Steer Bowker, M.D., F.R.C.S. ... 171
Charles Ebden Crommelin, M.D. 229
James Pryce Phillips, M.R.C.S., L.S.A. ... 229
Hon. Morgan Stanislaus Grace, M.D., L.R.C.S. ... 230
Frederick Norton Manning, M.D., M.R.C.S., L.S.A. (illustrated) ... 317
William Crozier ... 318
— Bain, Clare, South Australia ... 316
Henry Hayton Radcliffe, M.R.C.S., L.S.A. ... 378
Francis McAree, M.R.C.S. ... 378
Frederick William Wright, L.M. Board of Toronto ... 378
Edmund Raphael Kavanagh, L.R.C.P. and S. ... 378
George Patrick Brown, B.M., B.S. 378
Thomas James Pickburn, M.D. (Aberd.), M.R.C.S. (Eng.) ... 433
Joseph Whitaker, M.D., Q.U.I. L.R.C.S. (Dub.), M.D. (Melb.) ... 434
Henry Ogle Moore, M.B. (Dub.) ... 434
William Morris, L.F.P.S. ... 478
A. C. Bridges, M.R.C.S., L.S.A. ... 478
William Henry Goode, M.D. ... 536
William Chisholm Ross, M.B., Ch.M. ... 537
Robert Henry Ritchie, M.B., Ch.B. 537
W. Butler Walsh, M.D. ... 593

Pain, E. M., M.B., Ch.M., Spreading Traumatic Gangrene ... 156
Paraffin Wax Injection of, in Facial Deformities, by R. Arthur, M.D. (illustrated) ... 255
Paralysis, Case of Recurrent, of the Third Nerve, by Sinclair Gillies, M.D. (Lond.) ... 394
Patella, Ferraresi's Tenoplasty for for Fracture of ... 345
Pelvic and Abdominal Operations, by E. T. Thring, F.R.C.S. (Eng.) ... 455
Perkins, A. E., M.B., Ch.M., D.S.O., Tubercular Peritonitis ... 569
Personal Items 45, 88, 132, 183, 232, 280, 329, 384, 438, 490, 545, 599
Phipps, J. H., M.B., M.R.C.S., Cerebellar Abscess, Failure of Respiration during Operation, Recovery ... 245
Phthisis, Prevalence of in the City of Adelaide ... 278
Physiology of Voluntary Movements, by G. E. Rennie, M.D., M.R.C.P. 135
Plague Convection and Fleas, by J. S. C. Elkington, M.D., D.P.H. ... 348
——— Management of Epidemic, by J. Ashburton Thompson, M.D., D.P.H. ... 449
——— In Australia:
New South Wales ... 540
Queensland ... 541
Pneumonia, the Blood of, by S. Jamieson, M.B., C.M. ... 102
Pneumothorax, due to Pulmonary Hydatid, by W. T. Hayward, M.R.C.S. ... 505
——— a Case of, by A. H. Gault, M.D. (Lond.) ... 506
Presentation to Dr. Hankins ... 170
Presidential Address, by A. A. Hamilton, M.B., B.Ch. ... 291
Proceedings of Australian Medical Boards ... 46, 90, 134, 184, 234, 282, 332, 386, 439, 492, 546, 600

Page

Procidentia Recti, a Pessary for, by H. Swift, M.D. ... 517
Prostate, Surgical Treatment of Senile Enlargement of the, by W. Anstey Giles, M.B., C.M. (Edin.) ... 407
Prostatectomy, Perineal, by H. L. Maitland, M.B., Ch.M. ... 300
Prostatic Operation, Notes on Freyer's, by A. T. Vallack, M.B., Ch.M. ... 293
Ptomaine Poisoning, by B. B. Ham, M.D. ... 91
Public Health ... 39, 87, 131, 180, 228, 276, 325, 380, 435, 482, 540, 593
Puerperal Sepsis in Country Practice, by C. H. Souter, M.D. ... 105

Rectum, Excision of, by Methods of Kraske and Quenu, by W. J. S. McKay, M.B., Ch.M., B.Sc. ... 254
Reissmann, C., M.D., B.C. (Camb.), Morphia Tablets: Are they Reliable? ... 1
——— Diabetes ... 340, 395
Rennie, G. E., M.D., M.R.C.P., Physiology of Voluntary Movements ... 135
Report of the Medical Officer of West Australia ... 592
Reports of Societies:—New South Wales Medical Benevolent Fund 15, 79
Medical Society of Victoria ... 30
Medical Defence Association of South Australia ... 30
New South Wales Medical Union 169
Sydney and Suburban Provident Medical Association ... 157, 481, 526
New South Wales Lodge Practitioners' Defence Fund ... 228, 266, 300
Sydney Metropolitan Medical Association ... 234
Surgical Appliance Aid Society ... 277
Eastern Suburbs of Sydney Medical Association ... 367
Western Medical Association (New South Wales) ... 437
New South Wales Lodge Practitioners' Compensation Fund ... 477
Western Suburbs (Sydney) Medical Association ... 526
Review of Current Medical Literature:
Obstetrics and Gynæcology, 34, 35, 175, 321 ... 474
Ophthalmology ... 36, 176, 323, 475
Neurology ... 37, 177, 322, 476
Medicine ... 83, 221, 368, 532
Pathology ... 85, 223, 369, 533
Pædiatrics ... 86, 223, 370, 534
Surgery ... 121, 267, 426, 583
Therapeutics ... 123, 268, 429, 585
Ear, Nose and Throat 124, 269, 428 586
Reviews and Notices of Books:
Medical Ethics, a Guide to Professional Conduct, by R. Saundby, M.D. ... 21
Surface Anatomy, by B. C. A. Windle, F.R.S., M.D. ... 22
Death and Sudden Death, by Prof. P. Brouardel & F. Lucas Benham, M.D., B.S. ... 22
Nothnagel's Encyclopædia of Practical Medicine, by W. P. Northrup, M.D.; Diphtheria, Measles, Scarlatina, German Measles, by T. von Jurgensen, M.D.; edited with additions by W. P. Northrup, M.D. ... 22
Ear, Text-book of Diseases of the, by Prof. A. Politzer ... 70
Physiology, American Text-book of, by Prof. A. Politzer ... 70
Anæsthetics, A Practical Handbook, by J. Blumfield, M.D. ... 70
Rio Grande's Last Race and other verses, by A. B. Paterson ... 114
Purulent Nasal Discharges, Diagnosis and Treatment, by H. Tilley, M.D. ... 114
Manual of Surgery, by W. Rose, M.B., M.S. ... 114

Reviews—*Continued* Page

Skin, Treatise on Diseases of the, by H. W. Stelwagon, M.D., Ph.D. 159
Atlas and Epitome of Traumatic Fractures and Dislocations, by Prof. Dr. H. Helferich, edited by J. C. Bloodgood ... 159
Cancer of the Uterus, on the Diagnosis and Treatment, with the After Results in 73 Cases Radical Operation, by A. H. N. Lewers, M.B., F.R.C.P. ... 160
Atlas and Epitome of Otology, by G. Bruhl, M.D., and Prof. Dr. A. Politzer; edited by S. MacCuen Smith, M.D. ... 160
Operative and Clinical Surgery, Selected Papers by the late W. Stokes, M.D., M.Ch., F.R.C.S.; edited by W. Taylor, M.D. ... 160
Anatomy, Text-book of, by Prof. D. J. Cunningham, M.D. ... 208
Face, Mouth and Jaws, Surgical Principles and Surgical Diseases of, by H. Grant, M.D. ... 209
Manual of Medicine, by W. H. Allchin, F.R.C.P. ... 258
Bacteriology, Manual of, by Muir and Ritchie ... 258
Zoology, Elementary Text-book of, by A. T. Masterman, B.Sc. ... 258
Pulse, Study of the, by J. Mackenzie, M.D. ... 259
Abdominal Hernias, Saunders' Hand Atlases, by Dr. G. Sultan; edited by W. B. Coley, M.D. ... 259
The Medical Annual, Year-book of Treatment and Practitioners' Index ... 259
Pathology, American Text-book of, by L. Hektoen, M.D., and D. Reisman, M.D. ... 259
Skin, Pathology of, Handbook, by J. M. H. MacLeod, M.D. ... 306
Skin, Diseases of, Description, Pathology and Treatment of, by H. R. Crocker, M.D., F.R.C.P. ... 306
Protoplasm: Its Origin, Varieties and Functions, by J. W. Hayward, M.D. ... 307
Diseases of the Pancreas and their Surgical Treatment, by A. W. Mayo Robson, F.R.C.S., and B. G. A. Moynihan, M.S., F.R.C.S. 358
Transactions of the American Dermatological Association at the 26th Annual Meeting at Boston ... 359
Public Health Laboratory Work, by H. R. Kenwood, M.B., D.P.H. ... 359
The South African Medical Record 359
Tropical Diseases, Manual of Diseases of Warm Climates, by Sir P. Manson, M.D., F.R.C.P. ... 414
Manual of Practical Medical Electricity, by Dawson Turner, M.D., F.R.C.P. ... 415
Bacteriological Technique, by J. W. H. Eyre ... 415
Pocket Therapist: A Dictionary of Disease and its Treatment, by T. Stretch Dowse, M.D. ... 415
Operative Surgery, by H. W. Allingham, F.R.C.S. ... 415
Manual of Practical Anatomy, by D. J. Cunningham, M.D. ... 462
American Year-Book of Medicine and Surgery, edited by G. M. Gould, M.D. ... 463
Manual of Medicine, by T. K. Monro, M.D. ... 463
The Tasmanian Flora, by L. Rodway, L.D.S. (Eng.) ... 463
Wheeler's Medicine and Therapeutics, by W. R. Jack, B.Sc., M.D. ... 518
The Practitioner's Guide, by J. W. Carr, M.D., F.R.C.P.; T. P. Pick, F.R.C.S.; A. H. G. Doran, F.R.C.S.; and A. Duncan, M.D., F.R.C.S. ... 518
Robertson, W. N., M.B., Aural Discharges ... 561

Digitized by Google

Reviews—Continued Page
Tuberculosis: Recast from Lectures at Rush Medical College in Affiliation with the University of Chicago, by Norman Bridge, M.D. 570
Protozoa and Disease, by J. Jackson Clarke, M.B., Saunders' Hand Atlas Series. 571
Atlas and Epitome of Human Histology and Microscopic Anatomy, by Privat - docent Dr. J. Sabotta 571
The Care of the Skin and Hair, by Jas. Startin, M.R.C.S. 571
A Book of Poems, by Dr. J. W. Harbinson of Victoria 571
Commonwealth Dental Review 571

Sanatorium for Consumption at Wentworth Falls, New South Wales 128
Sarcoma of Superior Maxilla, by C. H. W. Hardy, M.B., Ch.M. 206
Sawkins, F. J. T., M.B., Ch.M., Anæsthesia in Abdominal Surgery 10
——— Ruptured Tubal Gestation 20
——— Case of Diffuse Acro-Scleroderma 462
Scirrhus of the Breast, Three Cases of 410
Scleroderma, Case of Diffuse, by F. J. T. Sawkins, M.B., Ch.M. 462
Scott, R., M.D., Ch.M., Three Cases of Scirrhus of the Breast 410
Septic Infection of Left Temporal Bone During Attack of Measles ... 556
Septicæmia, Some Cases of Puerperal, by E. H. Binney, M.B., Ch.M. 512
Sight-Testing Extraordinary 179
Skiagram of Human Lung, by L. H. Harris, M.B., Ch.M. 298
Skiagraphic Notes, by L. H. Harris, M.B., Ch.M. 105
Skirving, R. Scot, M.B. (Edin.), Clinical Signs and Pathological Changes in a Case of Addison's Disease 493
Snake Bite, by T. F. Macdonald, M.B., C.M. 257
Souter, C. H., M.D., Puerperal Sepsis in Country Practice 105
Stewart, A., M.B., M.S., Clinical Aspects and Modern Treatment of Pulmonary Tuberculosis 96

Page
Stirling, R., M.D., Columnar-celled Carcinoma of Cæcum—Excision—Closure of Both Ends of Intestine—Lateral Anastomosis of Ileum, with Transverse Colon—Recovery 346
Stokes, E. S., M.B., Ch.M., D.P.H., On an Outbreak of Diphtheria and Sore Throat, due to Milk Contaminated by Persons showing no Clinical Manifestations of either Morbid Condition 482
Surgical Gleanings, by C. H. W. Hardy, M.B., Ch.B. 109
Surgical Experiences During South African War, by Major W. B. Nisbet, M.B., M.C. 550
Sweet, G. B., M.B., Ch.M., Case of Molluscum Fibrosum (illustrated) 18
Swift, H., M.D., Pessary for Procidentia Recti 517
Sydney Metropolitan Sanitary Districts, Annual Report, by W. G. Armstrong, M.B., Ch.M., D.P.H. 326

Taylor, W. F., M.D., Septic Infection of Left Temporal Bone During Attack of Measles 556
Temperature, Phenomenal, by F. W. West, M.B., Ch.M. 20
Temporal Bone, Acute Septic Infection of the Left, During Attack of Measles, by W. F. Taylor, M.D. ... 556
Tetanus, Two Cases of Acute, Treated with Antitoxin—Recovery, by R. R. S. Mackinnon, M.B., Ch.M. ... 356
Thompson, J. Ashburton, M.D., D.P.H., Management of Epidemic Plague 449
Thring, E. T., F.R.C.S. (Eng.), on Certain Pelvic and Abdominal Operations 455
——— Abdominal Operations During Pregnancy 547
Throsby, H., M.B., Gynæcological Cases 64
Todd, C.E., M.D., Appendix Vermiformis of Unusual Size 207
——— Radical Cure of Umbilical Hernia 411
Tuberculosis, Clinical Aspects and Modern Treatment of Pulmonary, by A. Stewart, M.B., M.S. 96

Page
Tuberculosis, Electric Currents of High Frequence and High Tension, Action in (illustrated) 235
Tubercular Peritonitis, by A. E. Perkins, M.B., Ch.M., D.S.O. 569
Turner, D., M.R.C.P., Spread of Typhoid Fever 58
Typhoid in Hobart and Melbourne, Influence of Drainage on, by Jas. Jamieson, M.D. 56
——— Fever, the Spread of, by D. Turner, M.R.C.P. 58
——— Pathogenesis and Prophylaxis, Observations on Malaria, in the North-west, by T. B. Belgrave, M.D. 60

University Intelligence 43, 81, 120, 180, 266, 316, 381, 531, 597
Ure, Edith, M.B., Ch.M., Hæmorrhage in the Newly Born 517
Urine, Post-Operative Suppression of, by W. S. Byrne, M.D. 151
——— Four Cases of Suppression of, by H. C. Hinder, M.B., Ch.M. 197
Uterus, Case of Ruptured, by W. B. Vance, M.B., Ch.B., D.P.H. 9

Vaccination after Smallpox, by E. S. Hawthorne, L.R.C.P., F.R.C.S. 207
Vallack, A. S., M.B., Ch.M., Case of Freyer's Prostatic Operation 293
Vance, W. B., M.B., Ch.B., D.P.H., Case of Ruptured Uterus 9
——— Causes and Prevention of Death from Chloroform 141
Verco, J. C., M.D., F.R.C.S., Myelopathic Albumosuria 185

Wade, R. B., M.B., Ether Anæsthesia in Children 149
Weigall, R. E., M.B., Aphasia as a Result of Heat Exhaustion 297
Welsh, D. A., M.D. (Edin.), Clinical Signs and Pathological Changes in a Case of Addison's Disease 493
——— Gangrene of the Kidney ... 515
West, F. W., M.B., Ch.M., Phenomenal Temperature 20

Printed by W. E. Smith, Bridge Street, Sydney.

Digitized by Google



Digitized by Google

AUSTRALASIAN MEDICAL GAZETTE.

AN EXAMINATION OF MORPHIA TABLETS. ARE THEY RELIABLE?

C. Reissmann, M.A., M.D., B.C. (Camb.), B.Sc., M.R.C.P. (Lond.), Adelaide.

"Not being addicted to the habit of taking morphia, or, in fact, any other drug, it seems to me a unique experience when I state that I took with little discomfort to myself 43 grains of the sulphate of morphia in less than 12 hours on the 9th of September, 1902. The only symptoms experienced were slight dizziness, dryness and roughness of the tongue, slight bitter taste, dimness of vision, and one slight attack of vomiting. The last dose was taken about 8 p.m. During the night I had some curious realistic dreams. The morphia was taken by means of hypodermic injections (Parke, Davis and Co.), five tubes—two tubes containing one-half grain doses and two tubes ¼ grs., the other tube containing ¼ gr. and a 100th gr. atropine sulphate."

These lines were written by a medical man intent upon ending his days, and who a month later succeeded in doing so by taking hydrocyanic acid. Empty tubes labelled "Morphia Sulphate" were found in his room. On his body were several marks, which might possibly have been produced by hypodermic injections. There is little doubt that the deceased wished to poison himself by an overdose of morphia, but that the morphia failed to kill him.

It is a matter of common knowledge that morphiamaniacs may take large doses of morphia with impunity. Sir Lauder Brunton, in his book on the action of medicines, relates the story of a member of Parliament who while sitting in the House of Commons used daily to inject 24 to 32 grains of morphia into his biceps. But there is no suggestion that the medical man above referred to was a morphiamaniac, yet it would appear that he took more than ten times the lethal dose of morphia and lived. Is such a thing possible?

A friend of the writer once treated a patient who had taken 20 grains of morphia by mouth. This patient was not a morphiamaniac. He, too, recovered. Still, a large dose of a poison taken by mouth may possibly be ejected by vomiting or be rapidly swept out of the body by diarrhœa. A drug administered by hypodermic injection, however, cannot fail to reach the circulation. Therefore, allowing the statement at the head of this paper to be true, we are left with two alternatives: either it is possible for a large dose of morphia to be taken hypodermically without of necessity producing a fatal result, or else the particular preparation of morphia used by the deceased did not contain the quantity of morphia described on the label. The former of these alternatives is of some interest but of small importance; it is otherwise with the latter. Morphia tablets are very extensively used by the medical profession, and it, therefore, concerns us very much to know whether or not these tablets contain the full and correct dose as described on the label of each tube.

In order to put this matter to the test the writer has collected a number of specimens of morphia tablets from different vendors and manufacturers, and has subjected them to a careful analysis. The specimens examined were preparations of Messrs. Parke, Davis & Co., Messrs. Burroughs, Wellcome & Co., and Messrs. Mulford & Co. All the specimens readily gave the ordinary morphia tests.

The basis of Messrs. Parke, Davis & Co.'s morphia tablets appears to be lactose. The tablets when ignited swell up and char, finally burning away completely, yielding no residue. On removing the morphia from a solution of these tablets by precipitation with ammonia, the filtrate gives the tests for lactose:—When evaporated to dryness it is charred by strong sulphuric acid, it slowly reduces solutions of cupric oxide, with sodium nitro-phenyl-propiolate it yields indigo blue, and treated with phenyl-hydrazine and sodium acetate it gives on boiling a yellow crystalline precipitate showing the microscopical character of phenyl-lactosazone.

The tablets by Messrs. Burroughs, Wellcome & Co., and by Messrs. Mulford & Co., gave similar reactions, but the phenyl-hydrazine test was not made. Probably, in these also the basis is lactose.

The quantitative analysis was performed as follows:—A definite number of tablets were dissolved in a small quantity of distilled water. Ammonia solution was added drop by drop and the solution shaken. A crystalline precipitate of morphia soon appeared. Sufficient ammonia was added till the solution retained a distinct smell; it was then allowed to stand for 12 hours. The precipitate was carefully collected on a small filter and washed with a few cc. of cold morphia water. After draining, the filter paper with the precipitate was carefully pressed between layers of blotting paper, and the drying was completed on a water bath at 100° C. The dried filter paper with its contents free from ammonia was next folded and placed in a graduated flask of 250 cc. capacity, 25 cc. of a decinormal solution of hydrochloric acid here

Digitized by Google

added, and the mixture shaken till the filter paper was entirely disintegrated. Distilled water was then added to make up 250 cc. The resulting solution was filtered and 25 cc. of the filtrate removed to a separating flask of about 150 cc. capacity, an equal volume of distilled water was added, and about 15 cc. ether (of neutral reaction). Ten drops of a strong solution of iodo-eosine were added and the whole shaken. The colouring matter was wholly contained in the supernatant ether, the aqueous layer below remaining perfectly colourless. Decinormal soda solution was now slowly added from a burette and the flask agitated after each fresh addition of alkali until the aqueous layer first retained a distinct pink colour. This change appears suddenly when the requisite amount of alkali has been added. At least three titrations were made in each experiment, and from the results obtained the quantity of morphia present was calculated. All the experiments, with one exception, were made with samples of sulphate of morphia—$(C_{17}H_{19}NO_3)_2 H_2SO_4 5H_2O = 749{\cdot}2$—this being the salt most commonly used. Experiment No. 11 was made an analysis of a specimen of bimeconate of morphia, the formula for which was taken to be $C_{17}H_{19}NO_3 . CyH_4O_7 = 486{\cdot}88$. Two control experiments were first made in order to verify the accuracy of the method adopted.

The following table shows the amount of morphia salt per tablet found in the various samples analysed :—

No. of Experiment.	Maker.	Reputed Amount in Each Tablet.	Amount Found per Tablet.
III.	P. D. & Co.	Gr. $\frac{1}{4}$	Gr. $\frac{1}{4} + \frac{14}{1000}$
IV.	P. D. & Co.	Gr. $\frac{1}{4}$	Gr. $\frac{1}{4} + \frac{11}{1000}$
V.	P. D. & Co.	Gr. $\frac{1}{4}$	Gr. $\frac{1}{4} + \frac{23}{1000}$
VI.	P. D. & Co.	Gr. $\frac{1}{4}$	Gr. $\frac{1}{4} + \frac{28}{1000}$
VII.	P. D. & Co.	Gr. $\frac{1}{4}$	Gr. $\frac{1}{4} + \frac{11}{1000}$
VIII.	P. D. & Co.	Gr. $\frac{1}{4}$	Gr. $\frac{1}{4} + \frac{33}{1000}$
IX.	P. D. & Co.	Gr. $\frac{1}{4}$	Gr. $\frac{1}{4} + \frac{41}{1000}$
X.	B. W. & Co.	Gr. $\frac{1}{8}$	Gr. $\frac{1}{8} + \frac{2}{1000}$
XI.	B. W. & Co.	Gr. $\frac{1}{8}$	*Gr. $\frac{1}{8} + \frac{27}{1000}$
XII.	B. W. & Co.	Gr. $\frac{1}{8}$	Gr. $\frac{1}{8} + \frac{68}{1000}$
XIII.	M. & Co.	Gr. $\frac{1}{4}$	Gr. $\frac{1}{4} + \frac{13}{1000}$
XIV.	M. & Co.	Gr. $\frac{1}{4}$	Gr. $\frac{1}{4} + \frac{10}{1000}$

*Bimeconate of morphia.

Conclusions.—The more commonly used hypodermic tablets of morphia sulphate consist of a mixture of the alkaloid with sugar of milk. They are readily soluble in cold water, but their solubility appears to be slightly lessened after keeping for some years. None of the specimens examined contained less than the amount of morphia indicated on the label. Each tablet contained rather more than the advertised quantity of morphia, but the excess was too small to produce any distinct physiological result. The preparations afford a convenient means for administering hypodermic injections of morphia, and they are perfectly reliable.

P.S.—The above experiments were carried out in the laboratory of the University of Adelaide by the kind permission of Professor Rennie, to whom and to Mr. Higgins the author wishes to accord his grateful thanks for their constant courtesy and their much-valued advice.

(Read before the South Australian Branch of the British Medical Association.)

THE INCIDENCE, SYMPTOMS AND TREATMENT OF STRANGULATED HERNIA IN THE AGED.

By Charles MacLaurin, M.B., C.M. (Edin.), Hon. Assistant Surgeon to Prince Alfred Hospital and the Women's Hospital, Sydney.

The frequency of strangulation in hernia has, so far as I am aware, never been adequately studied, and the reason of this fact is the difficulty—I had almost said impossibility—of obtaining statistics bearing on the point. Most published statistics are vague or not pertinent, because it is not possible to find out how many people in a given community suffer from hernia. Statistics of recruits rejected for hernia are valueless for our purpose, because they refer (*a*) to young males only, and (*b*) in England and among our people generally to lives naturally selected, since men with hernia are unlikely to court rejection by presenting themselves for enlistment. The insurance offices might throw a little light on the subject, but the labour and expense of conducting an inquiry would be greater than the value of the result. Hernia is, however, of little importance in insurance. The experience of the Mutual Life Association of Australasia is that out of 60,000 insurances effected only seven were terminated by strangulated hernia, and of these only two had the hernia at the time of acceptance. Such a risk is, of course, practically inconsiderable. Many offices now accept proponents at real age on promising to wear a well-fitting truss.

These statements are not, however, conclusive from our point of view, because people with really bad herniæ are not accepted in any office—(*b*) when the hernia becomes a serious disability its victim may be unable to keep up his premiums; (*c*) a person with sufficient foresight to insure his life is not likely to neglect his hernia; (*d*) women, in whom the worst forms of hernia occur, rarely insure. It is, therefore, less surprising to find that in

Digitized by Google

New South Wales during the past eight years there have been about 40 deaths per annum from strangulated hernia.

It occurred to me to find out the frequency of hernia in a large number of people, such as the inmates of a great hospital. In the Sydney and Prince Alfred Hospitals during the last five years there have been 36,709 admissions for treatment, of which 660 have been for hernia; that is to say, 1 in 55, or nearly 2 per cent. If the population at large were to show the same proportion we should arrive at a total of about 27,400 herniæ in New South Wales. It is obvious that such a result cannot be entirely correct, for various reasons into which we need not here go; but, on the other hand, the figures show a certain constancy from year to year, if the two hospitals be taken together, and it is quite possible that perhaps our assumption may not be very far from the truth. Probably there are actually more than 27,400 herniæ in New South Wales. Of these, about 40 die annually of strangulation, corresponding to an annual risk of not less than 1 in 700.

Now, strangulation is essentially a disease of elderly people, Mr. Coghlan's statistics showing that, in 1900, out of 46 deaths from hernia only 22 were under the age of 50. Considering the much greater number of people alive below than above that age, this is a significant proportion.

We thus form the conclusion that the risk of strangulation in elderly people must be very considerable, in spite of the generally accepted opinion that such risk is not sufficient to justify a preventive operation. If the annual risk to all ages is about 1 in 700—which I have said is an assumption, but the nearest one to the truth that we are able to form—and if the risk of strangulation in the young is slight (and this no one will, I think, deny), it follows that the risk to old people with hernia must be very considerable indeed; and since we have seen that the insurance classes—the prosperous classes—almost never die of hernia, it is clear that the mortality must be largely among the elderly poor.

Therefore, we are justified in concluding that a working man with hernia is after middle age in a somewhat serious condition. He presents all the factors likely to bring about strangulation.

Phenomena of Strangulation in the Aged.

The symptoms of strangulation in elderly people may differ entirely from those observed in the young, and this, though a point of great practical importance, is barely noticed in most of the text-books.

Occasionally a typical case, with acute pain, vomiting, and collapse may occur; but, as a rule, the onset is much less violent. Pain is often but not always severe, and is felt in the umbilical region, occurring in spasms, with a dull sickening ache in the intervals.

Vomiting is, in my experience, a late symptom in the aged, and may be fæculent from the very beginning, after the original stomach contents are ejected. Constipation is, of course, absolute. The most notable point is, however, that collapse may be almost entirely absent until within a few hours of death, and there can be little doubt that this has led to some fatal errors of diagnosis.

Gangrene is, on the whole, a rare occurrence. In my experience it comes rapidly, if at all, and is sometimes marked by a cessation of pain. Fæculent vomiting, collapse, and death rapidly follow. The comparative rarity of gangrene is no doubt due to the lax grip taken by the degenerated muscles of old age, and to the fact that an old man usually dies more rapidly from septic absorption than a young one, leaving less time for his intestine to become gangrenous. The following remarkable case is within my own knowledge:—Male, aged 70, walked into the out-patient room of a metropolitan hospital, asking to have his hernia operated on. He was seen by the assistant surgeon, the medical superintendent, the house surgeon, and the visiting honorary, all of whom diagnosed non-strangulated irreducible inguinal hernia. Early next morning he began fæcal vomiting. He was immediately anæsthetised and operated upon, when four inches of gangrenous bowel were found. He died an hour after beginning to vomit, and I believe that no suspicion of strangulation occurred to anyone till that symptom appeared. Evidently the old man had been ill for some little time, and the occurrence of gangrene had masked all the acute symptoms, deceiving three experienced surgeons.

Prognosis.—At all ages this is grave; in elderly people it is most serious. A good deal of work has recently been done on the prognosis of strangulated hernia, and the older statistics must now be revised. In Prince Alfred Hospital during the last seven years there have been 34 cases in people over the age of 50; of these nine have died, giving a mortality of nearly 27 per cent., which is only slightly higher than the mortality at all ages. This average mortality is now pretty clearly established for good surgical practice. Gibson in 123 males had an average of 28 per cent., in 209 females 39 per cent., thus bearing out the statement that hernia is, on the whole, a more serious condition in women than in men. Moynihan gives the average in Leeds Infirmary as: inguinal, 17·4 per cent.; femoral, 23·8 per

Digitized by Google

cent. These are, probably, not far from the best average rate, and I doubt if most hospitals are able to show so good a result from the statistics I have seen. The death-rate at all ages seems to run from 20 per cent. to 25 per cent., varying with the intelligence of the local poor and the custom of the local practitioners as regards taxis. There are some people who have not sufficient intelligence to send for a doctor when they are ill, and there are still many surgeons who try persevering efforts at taxis, although the trend of opinion is in favour of immediate operation without any but the most rapid attempts at reduction.

Treatment.—No abdominal condition is more urgent. As has been said above, it is now pretty generally recognised that prolonged attempts at reduction are only courting disaster, and modern writers agree in stating that about a minute is quite long enough to try. It must be remembered that even successful taxis will not invariably save the patient, the hernia having been reduced *en masse* while still nipped by the peritoneum or by a band. It is needless to draw attention to the necessity of cleansing the inside of the sac and the surface of the gut before nicking the ring.

The point on which discussion is still raging is as to the treatment of damaged intestine. On the great authority of Treves the custom was till within a year or two ago to return the loop within the abdomen, leaving it near the ring and packing it round with gauze; but there can be little doubt that this practice is being less followed now than formerly. Once within the abdomen all control of the bowel is lost, and it is impossible to make certain that the loop is aseptic before returning it. Again, the introduction of a drain into the peritoneum is inadvisable if it can be helped, because gauze, even if aseptic, is a foreign body and must have some irritant effect; and it must be remembered that for a few hours such pieces of gauze form very firm adhesions, and it is quite likely that these adhesions may have some strangulating influence upon the intestine, or at any rate impede its free peristaltic motion, and this at a time when its life is hanging in the balance.

The procedure most in vogue in the case of doubtful bowel is to render the operation wound as clean as possible, nick the ring freely, and leave a loop outside the ring, drawing it well out till healthy bowel is reached. Gauze is then put loosely around the sound bowel so as to prevent septic matter from entering the peritoneum without interfering with the movements of the damaged portion. In one case I injected a concentrated solution of magnesium sulphate, as recommended by Marmaduke Shield, for ordinary intestinal obstruction, with satisfactory results. Failing an early motion, or rapid improvement of the patient's condition, the bowel should be opened in the wound and saline aperients given by the mouth. This can be done without general anæsthesia. The artificial anus thus formed is by no means easy to close in some cases; it will generally yield to an operation for short-circuiting within the abdomen if other means fail.

Should the patient recover, the loop may be freed in about a week and returned to the abdomen. It does not appear to be a good practice to close the wound when this is done, but rather to leave a piece of gauze around the bowel till it is shut off by lymph, because it is impossible to ensure that it is aseptic.

If the bowel be gangrenous the proper course is less clear. Recently a considerable mass of statistics, referred to at greater length in the appendix, has been published, showing that the mortality after formation of an artificial anus is greater than that found after resection of intestine, and from this fact some have reached the conclusion that resection is, therefore, the correct treatment for most cases of gangrene. The obvious commentary on these statistics is that resection is usually performed on patients who are not very bad, whereas an artificial anus is often looked on as a last resort in hopeless cases, and, therefore, the latter measure receives the discredit of a number of deaths which would have occurred under any treatment. While undoubtedly resection of the gut and immediate anastomosis is the method of election, it is to be feared that the publication of the statistics referred to will lead to a rush to perform this operation in cases which are too collapsed to stand the long handling and drain upon the recuperative power necessitated by it. The point at which I am driving is that the large mortality after the formation of an artificial anus is not the result of that procedure but of the hopeless condition in which many of the patients so treated are when operated on.

We have three methods now at our disposal:

(*a*) Resection and end-to-end anastomosis.
(*b*) Resection and Paul's tube.
(*c*) Artificial anus.

These three are named in the order of their desirability so far as can be gathered from recent literature.

With regard to (*a*), there can be no doubt that Murphy's button has come greatly into favour in dealing with hernial cases which are usually so collapsed that they simply cannot stand a long operation. The recent case

Digitized by Google

reported by Dr. Maitland to this Branch is an excellent instance of the brilliant results attainable by this method in suitable cases; but it must be remembered that many cases of hernia are unsuitable. Firstly, the button needs a fairly large opening in the ring before it can be passed into the abdomen; and secondly, one would hesitate to return a loop of bowel from a highly septic sac. That gangrenous herniæ are frequently very septic cannot, I think, be denied. The button also has disadvantages of its own which are no less evident in hernial cases than in ordinary intra-abdominal work. Again, in the class of people that we are now considering, their advanced age should make us think several times before we call upon their vitality to respond to the demands made by what is practically a plastic operation on a vital and possibly septic part.

(*b*) The method of Paul has come rapidly into favour in hernial cases, and has much to commend it. The sac and contents are cleaned as far as possible, and the bowel drawn down till healthy tissue is reached; the gangrenous gut is cut away and Paul's tube inserted, one into each lumen. The artificial anus thus formed is probably more easily closed than that formed by any other method, and there can be no doubt that the operation is more rapid and less exhausting to the patient than the last-named. I venture to think that it will take its place as the routine method for dealing with gangrenous hernia in old people, and probably as it becomes more often performed it will lead to a smaller mortality than any other method.

(*c*) The old way of making an artificial anus is very properly going out of use except in extremely urgent cases, and in remote districts where modern appliances may not be at hand. The gut was simply snipped away without dividing the constricting band at all. The defect of this method was that the artificial anus was often very difficult to close; no fair criterion of its mortality can be obtained, because it was so often done in moribund cases.

Lastly, we must consider whether an operation for radical cure should be done in strangulated herniæ of old people. Each case must be judged on its merits; but my own experience is that as a rule these patients are too exhausted for one to prolong one's operation beyond what is necessary to save life.

(Read before the New South Wales Branch of the British Medical Association.)

At a meeting of the committee of the Women's Hospital, Melbourne, on January 2nd, a cheque for £400 was received as a progress payment in connection with the garden party and fête held at the residence of Mr. and Mrs. Felstead, at Brighton.

HYDROPERITONEUM IN PELVIC DISEASE.

By Fourness Barrington, M.S. (Edin.), F.R.C.S. (Eng.), Surgeon to the Lewisham Hospital for Women and Children, Sydney.

Cases of extensive peritoneal effusion, associated with disease of the female pelvic viscera, being from their comparative infrequency of considerable clinical interest, is the motive which prompts the broaching of this subject, based on several examples occurring in recent practice.

Free fluid in the peritoneal cavity has been conveniently divided into two groups according to the cause:—

1. Ascites, when the effusion is accompanied by evidence of cardiac, renal or hepatic disease.
2. Hydroperitoneum, when the accumulated fluid is a consequence of a lesion within the peritoneal cavity, mostly pelvic in origin.

As already inferred, it is with the concomitant hydroperitoneum of pathological conditions of the pelvic viscera peculiar to womankind this paper purposes to deal.

Causation.—Hydroperitoneum may be associated with the following pelvic lesions:—

I. Ovarian Tumours.

(1) *Papillomatous (Parovphoronic) Cysts.*—Hydroperitoneum is a constant concomitant of the rupture of such a cyst or perforation of its wall. The fluid so emancipated gravitating to the recesses of the pelvis, is laden with germinative epithelial cells, which engraft themselves on the serous membrane and in their growth mimic in miniature the papillomatous nature of the parent stock. The cyst contents may be diffused far and wide by intestinal peristalsis, with hydroperitoneum invariably accompanying secondary papillomatous implantation.

The most remarkable recorded example of this association is the case of Pye-Smith's, in which the woman was tapped 299 times between August, 1884, and April, 1894, the autopsy revealing papillomatous cysts of both ovaries with general peritoneal infection.

The uncertain benignity of papillomatous disease of the ovary is beyond cavil. These tumours may be adenomatous (papillomatous cyst-adenomata): when the primary growth is removed the hydroperitoneum does not recur, the secondary implantation foci shrivel up, and a condition of well-being in the cœlom is established. On the other hand, they may be carcinomatous or, more rarely, sarcomatous in

Digitized by Google

varying grades up to the hopelessly malignant.

In rare cases hydroperitoneum is present, although neither perforation of the cyst nor involvement of the peritoneum can be detected as in

CASE I.—*Hydroperitoneum with choked pelvis and ventral hernia in a patient who had undergone double ovariotomy 16 years previously—Evacuation of five quarts of free fluid—Cocoanut-sized thin-walled cyst blocking pelvis—Altered anatomical relations of pelvic contents—Papillomatous cysts enucleated from both broad ligaments—Radical cure of hernia—Recovery.*

A. G., a tall, dark, sallow, emaciated widow, aged 45, was sent to me by Dr. Scott, of Dapto, and admitted into Lewisham Hospital on August 3rd, 1902, with an enlargement of the abdomen of six months' duration, accompanied by progressive loss of flesh. She had undergone double ovariotomy at the hands of the late Dr. Chambers 16 years previously, since when menstruation has been completely in abeyance.

The abdomen was uniformly distended, with bulged flanks, and bore a 4½ inch middle line cicatrix below the umbilicus, the lower 2 inches being unduly wide and the seat of an incisional hernia. Fluctuation and fluid thrill all over abdomen, with dulness in flanks becoming resonant on changed position. Mensuration, circumferentially at umbilicus 35½ inches.

Bimanually, uterus adpressed to symphysis, enlarged, fixed; pelvis choked with fixed, bilateral, hard, non-sensitive nodular mass, which could be indefinitely defined superiorly through the hernial orifice. Heart, liver and kidneys normal.

August 6th.—Abdominal cœliotomy, assisted by Dr. Sawkins, Dr. Burfitt administering the anæsthetic, five quarts of opalescent yellow fluid evacuated on opening the belly through the old scar. A cyst the size of a large cocoanut blocking the pelvis was exposed, and the sigmoid found adherent to the left iliac fossa, curving to an intimate union with the left uterine cornu over the left infundibulo-pelvic and round ligaments, and closely attached to the left side of the tumour. Ligamentous adhesions which existed between the bladder and anterior cyst wall were tied, and the former separated from the fundus uteri, to which it was adherent. An attempt to separate the sigmoid from the tumour resulted in its extremely thin translucent wall giving way with the escape of about a pint of clear, colourless fluid. The cyst contents were immediately absorbed by the gauze-sponge packing, which had been previously inserted in Trendelenburg's position, and was quickly changed.

The ovarian vessels having been secured on both sides, papillomatous cysts were enucleated from both broad ligaments and the back of the uterus with but trivial blood loss. Several vessels were separately secured in the trimmed capsule, and free oozing from the raw surface was controlled by temporary gauze packing. No trace of either ovary or of the ligatures from the previous double ovariotomy was to be found after the most rigorous search. The old stump on the left side was covered up by the intimately adherent sigmoid, and on the upper anterior surface of the cyst one inch of the Fallopian tube stood out, which was all that could be found of the right appendages, and was removed. Radical cure of incisional hernia by five-layer suture completed the operation. There was primary healing of the parietal wound, the patient leaving the hospital on September 7th, to live near by, with the pelvis free from any sign of deposit.

The specimen removed, here exhibited, shows remnants of the thin transparent cyst wall, which largely consisted of the posterior layer of the mesometria, filled with papillomatous tufts in varying degrees of luxuriance, some cauliflower-like and sub-sessile, others branching, villous processes being variform as to length and size, others again as free tags with bulbous ends. Numerous secondary cysts, with smooth exteriors and thin walls, rise from amidst the excrescences of the mother-cyst, and are stuffed with papillary outgrowths. Microscopic sections were kindly made by Dr. W. J. Munro, and show the growth to be a papillary adeno-carcinoma.

(2) *Proliferous cysts of the ovary* (*Oöphoronic cysts*) are accompanied by hydroperitoneum when such tumours present rupture of or leakage from a loculus, and especially when they undergo malignant change.

(3) *Ovarian dermoids* are sometimes associated with hydroperitoneum, but "it is a rare complication, except when such a tumour has ruptured into the cœlom." (Bland-Sutton.) The following is, however, a typical example:—

CASE II.—*Extensive peritoneal effusion, associated with large pelvi-abdominal tumour—Evacuation of seven quarts of free fluid from cœlom—Removal of adeno-dermoid of right ovary, weighing 13½ lb.—Ablation of left dermoid ovary—Recovery.*

V. B., a tall, emaciated, very anæmic, unmarried brunette, aged 25, was sent to me by Dr. Sinclair Finlay and admitted into Lewisham Hospital on August 9th, 1901, with an abdominal swelling of two years' duration, during which time she had been steadily losing flesh.

The abdomen was considerably and irregularly distended, with some eversion of the

Digitized by Google

lower ribs and bulged flanks, and occupied by a hard, irregularly bossed, laterally movable, non-sensitive tumour, which extended upwards to within an inch of the ensiform cartilage and entering into the pelvis, its right lower pole was smooth, obscurely fluctuating and bulged into the loin; everywhere dull on percussion except in the left flank, which was resonant when uppermost. A fluctuation wave could be obtained. Tumour dumb to auscultation. Umbilical zone measures 40 inches.

Bimanually, cervix conical, uterus retroflexed; lower pole of tumour filled the pelvis, extending into right loin mimicked a large tense football. Heart and liver normal. Urine contained a trace of albumen.

August 20th.—Abdominal cœliotomy, with the assistance of the late Dr. Fairfax Ross and Dr. Pym, who administered ether; 7 quarts of limpid straw-coloured fluid evacuated on opening the abdominal cavity; a 7½ inch incision necessary to deliver as a whole the tumour which arose from the right ovary; numerous ligamentous-like parietal and omental adhesions temporarily clamped and subsequently ligatured; tumour cut adrift after temporary hæmostasis by forceps with subsequent separate ligation of blood-vessels; top sewing of pedicle. The left ovary, the size of a closed fist, removed and pedicle similarly treated. The layered parietal incision healed per primain, and the patient was discharged on September 24th.

The specimen exhibited is an adeno-dermoid of the right ovary which originally weighed 13½ lb.; the main loculus in its lower part contained 3 quarts of the usual pultaceous grease (since evacuated), a bundle of matted hair lighter than the chevelure of the original possessor, with a bony plate in its bald wall carrying three teeth approximating the type of incisors. Most careful examination failed to find a leaking or burst loculus in the upper smaller portion, which is adenomatous (multilocular cystoma), while microscopically there is no evidence of malignancy. The left tumour is dermoid, and also contained sebaceous material, felted hair with an osseous plate in its walls.

(4) *Broad ligament cysts.* — Papillomatous disease of the ovary readily invades the mesometrium, and is, especially when peritoneal infection occurs, accompanied by hydroperitoneum. Simple broad ligament cysts are so rarely associated therewith that I have been unable to find a recorded case, but the following is an example:—

CASE III.—*Extensive cœlomic effusion, associated with pelvi-abdominal tumour—Evacuation of eight quarts of free fluid—Removal of bilateral unilocular broad ligament cysts—Recovery.*

M.G., a short, fair-complexioned, small-framed and wretchedly thin anæmic single woman, aged 23, a patient of Dr. Maitland Gledden, was admitted into Lewisham Hospital on January 2nd, 1902, with an abdominal swelling of six months' duration, general weakness and rapid loss of flesh.

The abdomen was symmetrically distended, half barrel-shaped, presented everywhere distinct fluctuation thrill and dulness on percussion even in the flanks on postural changes, with a circumferential measurement at the umbilicus of 35 inches.

Bimanually, uterus unenlarged, to front, pushed to the left, splinted between tense, tender, apparently fixed lumps, which filled the pelvis and could not be defined superiorly. Heart, lungs, liver and kidneys normal.

January 8th.—Abdominal cœliotomy, assisted by the late Dr. Fairfax Ross, ether being administered by Dr. Burfitt. Eight quarts of thin, straw-coloured fluid were evacuated through a 4½ in. incision, and the collapsed small intestines found crowded into the arch of the diaphragm. The uterus pushed to the left was buried in adhesions which had obliterated Douglas's pouch. The right broad ligament was occupied by a white glistening sessile cyst the size of a football, which, after tapping and securing both ends of the ovarian artery, was enucleated, the cut edges of the mesometrium being trimmed and approximated by a continuous suture. Most rigorous search failed to find the ovary on this side. The left broad ligament was similarly occupied by a cyst the size of a cocoanut and a thick fleshy pedicle made by securing temporary hæmostasis with forceps, cutting the tumour adrift, separately ligating the vessels and sequestering the raw surface. The left ovary was extremely small, and left in situ. There was primary healing of the layered parietal wound, and the patient was discharged on February 11th.

In the specimen removed, here shown, both cysts are unilocular, with smooth interiors; that on the right side being larger and with thicker and tougher walls, the tubes with occluded abdominal ostia stretched over each with obliteration of the mesosalpinx.

(5) *Solid ovarian tumours*—fibromata, myomata, sarcomata and carcinomata—are almost universally associated with hydroperitoneum, and some of these benign growths would never be known were it not for this complicating condition which often first attracts attention. Speaking in general terms, the presence of hydroperitoneum may be said to be the rule with solid ovarian tumours (innocent or malignant), while it is a matter for surprise that similar tumours of the uterus are

Digitized by Google

so complicated with such rarity that its existence almost serves to exclude them. The explanation probably arises from the different mode of circulation in the growths themselves, the uterine fibroid originating in an organ which has an abundantly anastomotic and easy blood supply, is well nourished by a free circulation in its capsule, while the ovarian tumour depends entirely upon a restricted terminal vascular supply which enters solely within a limited area at the hilum. It is, therefore, manifest that in dense ovarian neoplasms the venous return will by pressure become gradually interfered with and a serous intraperitoneal exudation prone to ensue. The greater mobility of solid ovarian, as compared with uterine tumours, may also, acting as a mechanical irritant, predispose to hydroperitoneum.

II. Uterine Tumours.

In the majority of deaths from carcinoma uteri an adhesive peritonitis prevents the occurrence of secondary nodules in the peritoneum, and cœlomic effusion is absent, but in the exceptional cases in which peritoneal carcinosis does occur, it will be found the primary disease has perforated its serous covering, epithelial infection being disseminated broadcast by the resultant hydroperitoneum.

In connection with uterine myomata, in the absence of gross visceral disease (*e.g.*, heart, kidney, or liver disease), hydroperitoneum is such a rarity that its presence practically serves to exclude them from a diagnostic point of view. In rare cases it "appears to be due to some chronic peritonitis by which the tumour is affected owing to some local degeneration." (Roberts.) Speaking generally, maliguant changes in uterine myomata are unaccompanied by secondary deposits in the cœlom or hydroperitoneum.

III. Tubal Disease.

Hydroperitoneum may occur with the following:—

1. *Catarrhal salpingitis* and its probable sequel, *papilloma of the tube*, the existence of persisting patency of the abdominal ostium being essential. "Salpingitis cannot set up hydroperitoneum, except it be so mild and so purely catarrhal as neither to cause closure of the ostium nor to inflame acutely the peritoneum." (Doran.) The secretion from the tube drops into Douglas's pouch, irritates the peritoneum, causing hydroperitoneum, which persists until the diseased tube is removed.
2. *Primary carcinoma*, with patulous tubal ostium.
3. *Tubercular salpingitis.*

It may be noted here that some forms of catarrhal and tubercular salpingitis are the only inflammatory lesions associated with hydroperitoneum. With these exceptions the concomitant is a new growth, commonly ovarian, more rarely tubal or uterine.

Clinical Import.—The impression gathered from a general survey of systematic works on gynæcology is that the existence of extensive hydroperitoneum in association with a pelvic tumour is very suspicious of malignancy; but I am a little disposed to think it is raised to a pessimistic significance to which it is questionably entitled. Hydroperitoneum frequently arises as a concomitant of benign neoplasms, with solid ovarian tumours, many innocent and non-malignant unencapsuled papillomatous disease, whether its site be the ovary, broad ligament, or Fallopian tube, almost universally. Per contra, cases of hopelessly malignant disease of the aforenamed pelvic viscera may be unaccompanied by any cœlomic effusion, as I can testify from personal observation of cases of the kind.

Speaking in general terms, to my mind hydroperitoneum with a pelvic tumour should never justify the diagnosis of malignancy, but other signs of weightier import should be looked for, viz., the characteristics of the tumour itself and general nutritive changes. Hard consistence, irregular nodular surface, fixity and rapid tumour growth, with the association of emaciation and cachexia, are strongly presumptive of malignancy, which is increased if there be choking of the pelvis by bilateral development of a comparatively small sized growth with early and rapid increase of hydroperitoneum. These local features must be qualified, for some ovarian sarcomata are soft and of extremely rapid growth, and, especially when cystic, are a distinct source of difficulty. If to the foregoing gloomy picture be added the occurrence of hydrothorax and œdema of the lower extremities, the probability of malignancy grows apace, becoming a positive certainty when there develop evidences of metastasis.

It must be borne in mind that "malignancy" is but a clinical term possessing no scientific significance until the morbid structures removed by the surgeon, when that is possible, have been submitted to the methods of the microscopist, enabling a definite pathological term to be fixed upon the disease, throwing a flood of light on its true nature. The mimicry

Digitized by Google

of the surgically curable to the incurable—the benign coupled with the semi-malignant to the malignant—in pelvi-abdominal disease, as far as the clinical aspect is concerned, is occasionally remarkable; but after the work of the skilled pathologist such mimicry ceases.

Treatment.—In many of these cases the truth, be it for weal or woe, cannot be learnt until the cœlom has been opened by the surgeon, and, therefore, one cannot too strongly emphasise the importance of an early exploratory abdominal incision, which should not be too niggardly, when the diagnosis is obscure, as it often is in cases of hydroperitoneum. Such an incision evacuates the fluid, and with hoisted pelvis permits an accurate abdominal exploration, the sense of touch being controlled by the aid of sight, and not infrequently a surgically curable condition is found. Unless it is reasonably certain that the disease is completely removable the operation should end as exploratory, the mortality of which has almost reached a vanishing point, and I have no hesitation in adding that if a surgeon injudiciously embarks on an operation which would have been more wisely concluded as purely exploratory he should endeavour to complete it at all risks, for the result of a complete operation under such circumstances can scarcely be worse than the almost invariable fatality of an incomplete operation in pelvi-abdominal surgery.

Tapping the abdomen in the class of cases under consideration needs only to be mentioned to be condemned. At best a plunge in the dark, it marks an epoch in the history of our art; but, owing to the fact that abdominal surgery in practised hands has been largely shorn of its past terrors, it has become effaced by the kindly hand of Time, and has no place in modern surgery as the initial treatment of hydroperitoneum. Its scope may well be restricted to the recurring hydroperitoneum of hopelessly malignant disease as a useful adjunct to a happy euthanasia.

References.—Bland-Sutton, "Surgical Diseases of the Ovaries and Fallopian Tubes," 1896; Alban Doran, "Papilloma of the Fallopian Tube, and the Relation of Hydroperitoneum to Tubal Disease," Lond. Obstet. Trans., vol. 28, 1886; Hubert Roberts, "Outlines of Gynæcological Pathology," 1901.

(Read before the New South Wales Branch of the British Medical Association).

The Antiseptic Shaving Saloon.—The antiseptic shaving saloon is the latest achievement in hygienic science. The victim is seated in an enamelled iron chair, with his neck and shoulders enveloped in a rubber pad that has been dipped in an antiseptic solution. Previously the razor, soap-dish and brush have been sterilised by half an hour's hard boiling. Nothing is allowed to touch the face that has not been either sterilised or disinfected antiseptically. Even the finger-tips of the operator are dipped in a solution. Taps are turned by the foot, and the drawers where towels are kept are microbe proof.

A CASE OF RUPTURED UTERUS.

By W. B. Yance, M.B., Ch.B., D.P.H., St. Kilda, Victoria.

Cases of rupture of the uterus in labour are so few in number as to make their occurrence worth reporting. This unfortunate case, which I saw in consultation, is of additional interest, as some two and a-half years ago the patient was operated on at the Alfred Hospital for ruptured tubal pregnancy. The history of the case as given to me by the medical man in attendance was as follows:—

Mrs. C., *æt.* 30, multipara, was operated on at the Alfred Hospital 2½ years ago for ruptured tubal pregnancy, the right tube and ovary being removed; the left one, being in healthy condition, was left. Some years ago the patient had symptoms of gastric ulcer which under treatment abated. During the whole period she was carrying, however, these symptoms again manifested themselves, and she was in indifferent health for the whole time. The pregnancy, however, ran its normal course.

Without any pain the waters broke on Friday evening. The medical man was sent for; he examined her and found it was a head presentation. Pains did not come on till Sunday evening, when she had four very slight ones. In the middle of the last she suddenly cried out that she had an awful pain in the chest. Shortly after, she vomited a quantity of semi-digested fluid, which was slightly stained with recent blood.

Recognising the serious nature of the case, the medical man at once sent for assistance. The messenger, however, as is usually the case, knew nothing of what was wanted beyond the fact he was to bring me for a certain medical man.

When I saw her the patient was said to be better, and semi-conscious; breathing shallow and hurried; pulse about 200, very weak; skin cold and clammy. Abdominally, the presentation was now made out to be a transverse one, and the fœtus to be in the uterine cavity.

There were no signs of external hæmorrhage; the os was found to be very œdematous and about the size of a two-shilling piece. A hand was presenting at the os, and portion of the placenta felt between the os and the body of the fœtus.

In consultation we agreed that the case was one probably of ruptured uterus. Arrangements were at once made to have the patient removed to hospital, as it was impossible to open the abdomen in the house, even if I had any instruments with me, which I had not, as not knowing what was wrong I came without

Digitized by Google

them. As the patient was rapidly sinking it was decided that an attempt be made to pack the uterus with iodoform gauze. The os dilated without any trouble or tearing. Immediately a large number of blood clots came away. A transverse tear extending almost completely across the upper surface of the uterus was easily made out. The tear commenced on the right side at about the situation where the tube had previously been removed. At this site the uterus was as thin as paper, while at the termination of the rupture it was about an inch thick. The placenta was found lying loose in the uterine cavity, and had slipped after separation between the fœtus and the os. The fœtus and placenta were removed without difficulty, and the uterus packed as well as possible with iodoform gauze. Saline by the bowel was administered and hypodermics of strychnine. The patient died about 20 minutes after I saw her and before she reached the hospital.

The case is of interest, not only from a diagnostic point of view as to whether it was a case of ruptured gastric ulcer, placenta previa with concealed hæmorrhage, ruptured uterus, or possibly pulmonary embolus.

From a practical point of view, from the fact that the extreme thinning of the walls of the uterus at the seat of rupture was probably caused by impaired nutrition due to obliteration of much of its blood supply by the previous operation, it is also of interest from the fact that the pains were so few and so slight to cause so extensive damage.

NOTES ON ANÆSTHESIA IN ABDOMINAL SURGERY.

By F. J. T. Sawkins, M.B., Ch.M. (Syd.), Hon. Assist. Surgeon Lewisham Hospital for Women and Children, Lewisham, N.S.W.

THE remarkable expansion that has occurred in the field of abdominal surgery during the last few years, characterised by its admirably planned, delicate and even heroic operations, has been made possible and permissible, chiefly by the aid of anæsthesia and asepsis.

Anæsthesia on the one hand allows that one-time mysterious and much dreaded peritoneal cavity, and its associated abdominal and pelvic viscera, to be as deliberately implicated in operative measures as they were formerly avoided and protected from interference. *Asepsis* on the other hand insures the success of these measures, and so justifies their performance.

One effect of anæsthesia is to abolish the pain, anxiety and general nervous tension which would be caused by operation on a fully conscious patient. Then again, by keeping him quiet, it permits the surgeon to work calmly and deliberately, to control hæmorrhage absolutely, and thus prevent undue loss of blood. Thus those two great factors in the production of shock are controlled by adequate anæsthesia. I would emphasise the word "adequate," for it must be admitted that inadequate anæsthesia may decidedly increase the nervous element in "shock."

Before the days of extensive abdominal surgery, besides loss of blood, the chief cause of shock during the administration of an anæsthetic, and a large factor in post-operative shock, was that an inadequate degree of narcosis allowed painful sensations to be conducted to the central nervous system; and though these impulses were, perhaps, not sufficient to wake the consciousness to realisation or even memory of pain, still they were enough to seriously disturb the subconscious nervous mechanisms, including those subserving reflex muscular movements, and respiratory, cardiac and vasomotor activities.

We may regard the condition of shock as being roughly divisible into a part due to actual loss of blood, and a part due to nervous disorganisation.

The nervous element may be the result of some sudden traumatism acting quickly, such as a severe blow on the epigastrium—the "solar plexus" of the sporting fraternity—or it may be due to a long continued or frequently repeated minor disturbance, such as may be caused by handling the abdominal viscera. In either case the shock is evidenced by reflex phenomena, due to upset nervous mechanisms, amongst which we know the sympathetic system plays an important rôle. Now, in ordinary surgical operations the elimination of the pain element, and the prevention of blood loss, are sufficient to do away with the possibility of shock, either immediate or post-operative. But occasionally, when dealing with parts having intimate nerve relationships, it happens that though the patient be quite insensible to pain, he may sustain profound shock by reason of sympathetic afferent impulses to the central nervous system.

A common enough instance is seen in the comparatively trivial operation of tenotomy of the internal rectus of the eye for strabismus. Pain may be entirely absent, but on the severance of the tendon, and consequent forcible rotation outwards of the eyeball, it is no uncommon thing to notice a dilated pupil, a dropped heart-beat with disturbed respiration, general pallor and a subsequent sweating.

Digitized by Google

Or in removal of a thyroid growth the incision may have been completed and the tumour partly isolated without untoward incident; but at the moment of delivery through the external wound, with consequent dragging on the numerous sympathetic filaments distributed to the thyroid gland, a similar sudden and sometimes profound shock may be evidenced by like symptoms.

Then it must have occurred to every surgeon, that while performing laparotomy all went well until the hand was introduced into the abdominal cavity; then immediately the recti contracted, the pupils dilated, pulse and respiration became irregular, or efforts at emesis occurred, and the operation had to be discontinued till a deeper degree of narcosis was induced.

The interpretation of these phenomena is that when the abdomen is opened the surgeon has to deal with organs and tissues under different conditions to those situated externally. Here the sensory nerves are completely overshadowed by the presence of the sympathetic system, whose plexuses and branches of distribution play so important a part in the physiology and pathology of the abdominal viscera.

Hence I would argue that mere anæsthesia is often not sufficient in abdominal operations, involving, as they do, handling of the viscera or disturbance of existing relationships, especially if adhesions be present, or where organs or parts of organs have to be excised. In such cases severe and persistent shock may be caused even after pain-sensation has been obliterated, and ordinary guiding reflexes abolished. One has only to remember the intimate relationship existing between the sympathetic and the vasomotor, cardiac, and respiratory mechanisms, to understand how readily the whole subconscious nervous system may suffer as the result of such procedures.

In such a case as I mentioned, where symptoms of shock are elicited on the opening up of the abdominal cavity, if instead of waiting for deeper anæsthesia, the operation be persisted in, not infrequently a most dangerous condition of combined syncope and anæsthesia supervenes in which the syncope rather than the anæsthetic relaxes the abdominal muscles. I have seen severe operations completed while the patient was in this condition, and one can scarcely wonder at the persistence of intense shock after so-called recovery from the anæsthesia in such cases. As a matter of opinion, I do not hesitate to say *that more patients die as the result of inadequate anæsthesia from post-operative shock than die from anæsthetic overdose on the table.*

Therefore, if we can obtain, with immediate safety to the patient, a higher degree of narcosis (one which will not only abolish painful impulses, but also control sympathetic reflexes) —a condition, to coin a word, of apathesia— we shall be able to facilitate the work of the surgeon, and diminish the mortality attending it.

Though the progress of a properly-conducted anæsthesia is a gradual one, certain definite stages are more or less clearly marked out by characteristic phenomena. Hewitt, in his invaluable text-book on anæsthetics, describes four stages:

1. Disordered consciousness and analgesia.
2. Unconscious reflex activity.
3. Surgical anæsthesia and coma.
4. Bulbar paralysis and death.

These stages merge from one to the other, more or less gradually, according to certain variable conditions; the chief of these variable factors being, as one may easily understand—

(*a*) The anæsthetic employed;
(*b*) The method of administration, including the personal equation of the administrator;
(*c*) The condition of the patient, being *his* personal equation.

Now, with regard to the first of these factors —the anæsthetic employed—we are all familiar with variations in the phenomena of anæsthetic states produced by ether, chloroform, and nitrous oxide gas. Then again, every administrator has his own particular ways of administering; while the condition of the patient is thoroughly treated of in such text-books as Hewitt's.

I shall not attempt to follow the patient through the various stages of anæsthesia; but it is towards the phenomena of the third, and those merging from the third into the fourth and ever to be avoided stage, that I would direct attention just now. We are only too well aware of the terrible suddenness with which the fourth stage occasionally precipitates itself upon the patient in some cases of chloroform administration, and always the pushing chloroform after ordinary anæsthesia has been established, is a hazardous and terribly anxious procedure. The *fall of blood pressure* and the *depressed respiration*, which are caused by the drug, must always make it a dangerous one to use by itself for the production of deep narcosis.

With ether, on the contrary, there is, if care be taken to maintain a clear airway, a very definite and distinctly appreciable interval between the third stage of surgical anæsthesia, and the fourth stage of paralysis of the bulbar centres. In fact, one may *with ether* deliberately and surely lead a healthy patient up to the very brink of annihilation, and as calmly and surely lead him back again—always provided that the airway be kept clear.

Digitized by Google

In the higher degrees of anæsthesia, the *breathing* becomes slower and shallower, and therefore interferes less with the surgeon's manipulations than in the lighter degrees. The *heart* also slows down, though a good pulse and colour are maintained, the *pupil* becomes widely dilated, and is generally irregular in outline, while there is absolute *muscular relaxation* and absence of any sign of *reflex*, even to the most searching surgical procedure.

Therefore, I believe that ether is by far the safer agent wherewith to obtain and maintain the higher degrees of narcosis, and if it be given judiciously, with ample precautions to ensure a free airway, its field for choice as an anæsthetic in abdominal surgery is a very wide one. The great objection to its use is the amplification of diaphragmatic movements which it causes, while chloroform ensures quiet and even subnormal respiratory movements. This objection does not hold in the lower part of the abdominal field. An old sea-doctor when in doubt about the treatment of an obscure abdominal discomfort tied a tape round the patient at the level of the umbilicus. If the discomfort were above the tape he gave an emetic, if below, a purgative. Roughly, a similar expedient may be taken as a guide to choice between chloroform and ether. Other things being equal, chloroform is by the surgeon preferred, because of its quiet respiratory movements; but below the tape, in the lower abdominal segment, the amplified diaphragmatic movements are sufficiently dissipated to no longer form an argument against the use of ether; and, as I mentioned above, if care be taken to keep an ample airway, and further, if the anæsthetic be pushed past the stage of mere anæsthesia, the breathing becomes slower and less ample in its muscular manifestations, so that even in operations on the liver or stomach ether is not always contra-indicated on this account.

The method of administration will, of course, vary in its details, if not in essentials, with the administrator. Some prefer to start with ether in a Clover's inhaler, in spite of the trouble this course frequently causes on account of the disagreeable and irritating properties of the drug. Others, again, begin with nitrous oxide, and, unconsciousness having been thereby established, continue the narcosis with ether. There are very many things to be said in favour of this sequence, but they have been said so clearly and forcibly by Hewitt and others that it is not necessary for me to dwell upon them. The only points against this sequence are (1) the difficulty of portage, and (2) the great objection some patients have to a close-fitting mask. For my own part, I almost invariably commence with chloroform, given on an open mask which is gradually approximated to the face. The administration is continuous but gradual, and aims to be never concentrated to the point of discomfort to the patient. As the period of excitement approaches I generally give some ether on the open mask, and then substitute it entirely with the Clover inhaler, starting with the indicator at about two. In using the chloroform-ether sequence in this way, one saves the patient the great discomfort the initial stages of ether anæsthesia, and the dangers of the excitement period of chloroformisation.

Etherisation is then continued through the stage of surgical anæsthesia, with the moderately dilated, sluggish pupil characteristic of that condition, and pushed till the *pupil* becomes absolutely dilated and fixed, the *breathing* regular and slow, and the *pulse* full, slow and regular. In this condition of deep etherisation not only is the patient anæsthetic, but also—at any rate, to a very large extent—apathetic. Operations of great extent, involving considerable manipulation of viscera over a lengthened period, are sustained by the patient without any of the symptoms of shock, and it is a common occurrence to note that the pulse condition, at the end of even a long and severe operation, is little if any worse than before the commencement of the administration. Sometimes, owing to the stimulant effect of ether, it is absolutely stronger and fuller than before.

And the maintenance of this safe condition of apathesia does not entail an excessive amount of ether; once the condition is obtained, it merely requires an equal amount to maintain it as would be required to maintain a lower condition of anæsthesia. And I have been assured by surgeons that the occurrence of after shock is less common after this prolonged apathesia than after lighter conditions.

I am quite aware that a similar condition of profound anæsthesia, or of apathesia, may be, and is, obtained by the use of chloroform, but the immediate dangers attending chloroform administration to such a degree are so imminent as, in my judgment, to entirely put it out of court in any case where ether can be substituted. As a rule, with chloroform the transition from the condition of anæsthesia, through that of apathesia to dangerous coma, is a short stage in time and administration, whereas with ether it is a definitely-marked period, from which the administrator can as equably lead his patient as he can safely induce it. What anæsthetist would deliberately extend the exhibition of chloroform till the pupils became dilated and fixed and the breathing became definitely

Digitized by Google

slowed? Yet one may deliberately and calmly with ether attain such a degree and maintain it for hours, knowing that the patient is not only perfectly safe from immediate danger, but also being safeguarded against the possibility of post-operative shock,—the one *sine qua non* being a perfectly free airway.

Trendelenberg's position, to my mind, is extremely favourable to the safety of the administration, but the table from the knees to the head *should always be in one plane*. Any table that has a bend at the level of the shoulders should be discarded from the up-to-date hospital. Such a joint merely throws forward the head towards the breast, and thus interferes with the natural airway. All pillows, except, perhaps, a thin one, should also be removed as soon as unconsciousness supervenes, for a similar reason. In operations for large tumours, such as fibroids or ovarian cysts, it is well for the stomach to be absolutely empty. I have often had trouble from the expression of fluids through the cardiac orifice, along the œsophagus into the mouth and nose, by the weight of a displaced tumour. This not only is apt to interfere with the "free airway" at the time, but may give rise to a sinusitis, or even a bronchitis or pneumonia, subsequent to the operation.

In edentulous people it is often difficult to maintain an airway under the Clover mask, owing to the insucking of the unsupported lips and cheeks. I have frequently overcome this by padding with cotton-wool between the gums and the cheeks. Where the patient has well fitting false teeth I see no objection, but rather an advantage, in retaining them during ether anæsthesia, first taking the precaution of securing them by means of silk thread.

In patients suffering from blocking of the nasal passages from any chronic cause, much difficulty in establishing a sufficient airway is generally experienced. In these there is frequently a great disparity between the development of the tongue and the size of the oral cavity. Moreover, the tongue in these cases apparently swells considerably as the result of the ether administration, and thus further impedes the regulation of the respiration. At every inbreath, and frequently also with expiration, there is a vigorous snoring sound, which is most irritating to those engaged in the operation. At times I have been compelled to seize the free tip of the tongue with a forceps and draw it well forward, continuing the administration of ether with an increased degree of comfort. I find that as I have gained more experience in ether administration I have required less and less often to use the tongue forceps, or to swab out the throat, but the accumulation of mucus at the back of the throat at times causes considerable interference with the breathing. Usually, however, the lifting forward of the lower jaw by pressure behind its angles, at the same time turning the face to one or other side, is quite enough to dislodge the obstructing mucus.

Not infrequently during the initial chloroforming the breathing becomes shallow and insufficient to induce complete anæsthesia; the patient goes to sleep, or more or less voluntarily holds the breath. Various expedients have been tried to overcome this source of delay, from pulling the patient's hair to scratching along the course of the external respiratory nerve. Nothing answers so well as the substitution or addition for a while of a fairly saturated atmosphere of ether.

It sometimes happens, in spite of all one's care, that during operation a patient emerges from true anæsthesia to the unconsciousness of sleep. This is more likely to happen in operations causing but little pain or shock, or where the ether chamber has been forgotten and become dry. The first indication of such a mischance may be a sudden contraction of the abdominal muscles, accompanied by a dilatation of the pupils, impeded breathing, and the usual indications of impending emesis. At such a time one feels rather than sees the reproachful glance of the operator. Further trouble may generally be averted by firmly, not to say forcibly, pinching the columella naris. The attention of the subconscious subject is diverted from the nausea which seems to be attacking his alimentary organs, to the distinct discomfort which exists at the commencement of his respiratory tract, and the unfortunately-timed efforts at emesis give place to increased respiratory movements. Time and opportunity are thus given to administer an adequate dose of the anæsthetic; and so to reproduce the necessary condition for operation; rubbing the lips with a dry towel will often have a similar effect.

One occasionally meets a patient whose vitality is so weakened by disease that the weight of a Clover mask and the effort of inhaling through it are sufficient to cause asphyxia. There is then nothing for it but to adopt some other form of administration. One such case I kept anæsthetic during a prolonged operation for gall-stones, with ruptured suppurating gall-bladder, by means of ether on an open mask, supplemented at times by a small quantity of chloroform.

Many abdominal cases, either from idiosyncrasy, or because of the site of the operation, cannot take ether alone, and then chloroform has to be the anæsthetic in chief. Fortunately there does not seem to be the same amount of

Digitized by Google

shock attending operative manipulation of the viscera just below the diaphragm as of pelvic organs. I have several times given chloroform for pylorectomy in elderly people, and been gratified to notice that at the completion of the operation the pulse was full, regular and quiet, as it had been at the start, while post-operative shock did not supervene. Perhaps that ill-used organ, the stomach, is so accustomed to rough treatment from within, that a little extra from without makes little or no impression on it; but it is my almost invariable rule when giving chloroform to have an ether drop-bottle also, and to use it pretty extensively. I like this plan of mixed administration far better than the use of any definite C E or A C E mixture. With separate bottles one can give an almost saturated atmosphere of ether alone should occasion arise, or one may add just so much as may prove necessary to stimulate both respiration and heart action according to circumstances. I believe, too, that one can safely attain and maintain a deeper degree of anæsthesia with chloroform if supplemented in this way with a liberal addition of ether.

With regard to the use of *alcohol*, I confess to a prejudice in favour of its *preliminary* administration by stomach or bowel in those cases where it is indicated. It then helps in two ways: one—a most important one—is the Dutch courage it gives the patient, thereby enabling him to face the anæsthetist in a much better nervous condition than otherwise; and secondly, by its stimulating effect throughout the operation, ably seconding the action of the inhaled ether.

Many surgeons as a routine practice give their patients a hypodermic injection of *morphia* before operation. I cannot approve of this as a regular course. While in some nervous women, or in those worn out by loss of sleep or intense pain, a preliminary hypodermic of morphia may cause a euphoria, one has to remember the depressing effects of the drug on the respiratory centre, its constipating action on the bowels, and its nauseating after-results. Its depressing effect on the respiration is not of so much moment when ether is to be the anæsthetic, but when chloroform has to be given, it, to my mind, increases the already sufficient danger attending deep chloroform anæsthesia in a debilitated subject. Its use strangely modifies the pupil changes in etherisation to practically become identical with those of chloroform anæsthesia.

If morphia be used as an adjunct to anæsthesia, it should, I think, be given in a not greater dose than one-sixth, and should be combined with atropine or strychnine, or both. I should prefer, too, to have it administered at the close of an operation, with a view to inducing a prolonged sleep instead of the horrible nausea of anæsthesia recovery. While I am doubtful of the advantages of morphia as an adjunct to anæsthetics, I am confident as to the value of a preliminary course of *strychnine*, hypodermically or by the mouth, in all patients with lowered tone from whatsoever cause.

The administration of a *saline* under the skin is of great assistance to the anæsthetist in cases where there has been considerable blood loss, or where the fluids of the body have been diminished from any cause; but where failing circulation is due to a heart atonic from disease, or poisoned by overdose, it is obviously useless to increase the fluids of the body. To do so is only to increase the work to be done by an already overtaxed organ. In such cases phlebotomy might be tried with advantage. *Adrenalin* is a drug which in suitable cases may be of great use in those emergencies which are apt to befall even the most careful administrators. The hypodermic injection of a small dose of adrenalin quickly raises the blood pressure, and if the heart be sound will help to tide over a serious misadventure.

The conjunctival reflex is of little value in the majority of deeply-etherised patients. One might almost apply to it the epigram on the virtue of patience: "Found never in a woman, seldom in a man." The exceptional cases in which it persists are alcoholics and those possessing a full hard pulse, as in chronic nephritis.

The pupil reflex is of great value in ether administration, when its variations at different stages and in different individuals is thoroughly appreciated. The pupil of simple ether anæsthesia is usually moderately dilated and round; it shows no immediate reaction to light, but if it be kept exposed, without further administration, it gradually contracts with jerky movements generally synchronous with the inspirations. But in strong muscular men, in those of either sex with hard pulses, alcoholics, and where morphia has been previously administered, the pupil approaches rather to the chloroform type. In the deep degree of etherisation which I advocate for abdominal work, the pupil gradually enlarges till it is widely dilated, immobile, and usually irregular in outline; in fact, just such a pupil which, if it occurred in chloroform administration, would unpleasantly suggest a coroner's inquest. But with this pupil in ether-anæsthesia there is a quiet regular pulse and equally satisfactory respiratory action, and if the ether be withdrawn the pupils gradually contract to the moderately dilated, regularly outlined condition of ordinary anæsthesia, the pulse and respiration continuing unaltered, or but slightly accelerated. If

Digitized by Google

administration be now not recontinued there will eventually come a *deep sighing inspiration* which, though I have never found it mentioned in any text-book, I consider the best indication we possess for the necessity of more anæsthetic. If it be not given the pupils continue to contract to the condition found in deep sleep, unless emesis occurs, when they become dilated. One of the causes of the larger pupil in the mere anæsthesia of ether, as compared with that of chloroform, is the greater intraocular tension during etherisation, due to the higher blood pressure characteristic of ether administration than that of chloroform. Hence the sensitive pupillary curtain recedes before the increased tension in the anterior chamber.

A similar dilatation is temporarily caused by undue pressure over the cornea in ill-advised attempts to elicit a corneal reflex. The iris recedes before the compressing finger-tip and resumes its original position on withdrawal. This may possibly mislead the administrator in etherisation, while it is a positive source of danger in chloroform, simulating, as it does, the "safety" pupil reflex to light. The point is mentioned to emphasise the unnecessity for vigorous manipulation of the occular conjunctiva in attempts to obtain a lid reflex. Any but the gentlest touching of the conjunctiva is apt not only to damage the delicate epithelial membrane, even to the formation of corneal abrasions, but, in addition, quickly renders it less sensitive, and so diminishes the use of the test. This can be demonstrated in any long-continued chloroform operation where one eye has been repeatedly used in endeavours to obtain a lid reflex. One has only to compare the result with that obtained in the hitherto unused eye to see how definitely the frequently fingered eye's sensibility has been tired out. Associated with this tired-out condition there is generally a comparative dilatation of the corresponding pupil.

(Read before the New South Wales Branch of the British Medical Association.)

THE Hon. Secretary of the N.S.W. Benevolent Fund (Dr. Maitland) desires to acknowledge the receipt of subscriptions from the following medical men for the year 1902:—Sir Norman MacLaurin, Drs. Craig, Foreman, Crago, L. D. Parry, W. Chisholm, Megginson, Sandes, Morgan Martin, F. W. Hall, G. Marshall, G. E. Rennie, McCredie, J.A.Dick, Taylor Young, H. Browne, Fiaschi, Gill, G. R. P. Hall, Scot Skirving, Camac Wilkinson, W. Sheldon, MacCormick, Kirkland, Sydney Jones, W. Hull, Machattie, James McLeod, Stanley, C. H. Scott, Worrall, Helsham, P. T. Thane, W. Spencer, J. H. Wilson, McClelland, Barkas, Pickburn, Fairfax Reading, Woodward, English, W. H. Read, Samuelson, Arthur Andrews, T. Lane, G. O'Neill, Clarence Read, Kiernander, G. Hurst, T. Stephens, Stephenson, T. W. Lee, H. H. Lee.

NOTES ON TWO CASES OF DEATH FROM ETHER ANÆSTHESIA.

By Sydney Jamieson, M.B., C.M. (Edin.), M.R.C.S., L.R.C.P., Hon. Physician and Pathologist, Sydney Hospital.

DURING the past month, within a few days of one another, there occurred in Sydney two deaths from ether anæsthesia, and it occurred to me that the notes taken at the post-mortem examinations might be of some interest to the members of the Association.

It is just as well that those members of the profession whose faith in ether as an anæsthetic is so unbounded should remember that sometimes a fatal issue may result from its use even at the time an operation is in progress, as well as from pneumonia within a few days of the administration.

It is hardly to be expected that the condition known as "general anæsthesia," a condition which is as close an approach to death as anything one can well imagine, should not at times be accompanied by untoward results even in the hands of the most highly skilled, and no matter what anæsthetic is used.

Generally speaking, practitioners may be divided into three classes as regards their attitude towards the two most commonly used anæsthetics (ether and chloroform), viz.:

(1) Those who prefer chloroform.
(2) Those who prefer ether.
(3) Those who deem neither suitable in all cases, but prefer chloroform in certain conditions and ether in others.

The partiality shown by medical men for either of these anæsthetics is largely, I feel sure, owing to the school in which they received their medical education.

In Edinburgh chloroform is almost exclusively used; in the American schools ether; in London ether by some and chloroform by others.

In Edinburgh chloroform is administered by the simplest means possible, in accordance with the rules laid down by Syme, and the results are so satisfactory that ether is but seldom made use of except as a local anæsthetic.

It is not, however, my wish to go into the relative merits of the two anæsthetics in this paper, but rather to place on record the post-mortem notes of two cases of death under ether anæsthesia.

Case 1.—A.M.D., *æt.* 40 years, had for many years been the subject of repeated hæmorrhage, resulting from a large uterine fibroid, and her condition at length became so serious that she was recommended to undergo an operation for its removal.

Digitized by Google

As far as could be ascertained by stethoscopic examination, the patient appeared to be a very suitable subject for the employment of an anæsthetic, and ether was the one selected. The operation, which lasted about 40 minutes, had been almost completed (the abdominal sutures alone being unfinished), when the patient, who up to that time had given the anæsthetist no occasion for alarm, was seen to become suddenly blanched, and in a few moments, without any previous warning, the heart ceased beating. The usual restoratives were employed, but without avail.

Post-mortem Examination.—Body very pale, pupils moderately dilated. There was a recent abdominal incision, extending from the umbilicus to the pubes.

On re-opening the wound, it was found that the uterus and appendages had been removed, and that everything as far as the operation was concerned was quite satisfactory.

There were numerous areas of ecchymosis on the peritoneum, covering the posterior part of the pelvis, apparently resulting from adhesions that had existed between these parts and the uterus or tumour.

The right side of the heart was very flaccid and half empty. The blood in the organ was of dark colour and quite fluid. The left ventricle was flaccid, friable and empty. There was a marked invasion of the fat cells of the deep layer of the epicardium between the muscle fibres of the right ventricle; in fact, in places the columns of fat extended almost to the endocardium. The pericardial sac was in part obliterated by old fibrous adhesions, evidently the result of some previous inflammatory changes.

There was no valvular disease, and the coronary arteries showed no abnormality.

Lungs were deeply engorged, and smelt strongly of ether, as did all the organs of the body when sectioned.

The liver was small and fatty. The spleen was enlarged, and its pulp was very much softened.

Both kidneys were enlarged and deeply congested.

The abdominal veins were deeply engorged, especially the mesenteric.

The brain was deeply congested, but otherwise normal.

Sections were subsequently made of the muscle of the left ventricle, and it was found to show evidences of a fairly advanced fatty degeneration.

Case 2.—This case occurred within a fortnight of that just described.

C.M.K., *æt.* 31, a native of Samoa, was admitted to the Sydney Hospital on November 21st, 1902, suffering from ectopic gestation. She was operated upon at 9 a.m. on November 22nd. At the time of the operation the patient was in an extremely debilitated state, and almost ex-sanguine from internal hæmorrhage.

On inquiry it appears that she had been attended at her home for three weeks before being sent to hospital for operation.

The operation, which lasted about three-quarters of an hour, had been almost completed when the patient suddenly collapsed and stopped breathing.

The usual measures to restore animation were adopted, but without avail.

Post-mortem Examination.—Made the same day (November 22nd). The body was that of a stout, flabby-looking young woman. Breasts were swollen and contained milk. The skin and mucous membranes were extremely blanched. Post-mortem lividity was but ill marked. Rigidity was still present, but passing off.

A recently-made incision was present in the lower segment of the abdomen, extending from the pubes to within an inch of the umbilicus. On opening the abdomen it was found that the left ovary and tube had been recently removed. There was about ¼ pint of dark fluid blood in the upper half of the abdomen.

The lungs were very voluminous, and on section were found to be very œdematous and congested. They smelt strongly of ether.

The heart was almost empty of blood. The muscle of the left ventricle was very flabby and friable, and had a markedly mottled appearance. There was no valvular disease, but the coronary arteries were the seat of early atheromatous changes.

Sections of the heart muscle at a later period showed that it was the seat of an extensive and widespread fatty degeneration.

The liver was slightly enlarged and very fatty; the spleen enlarged, much softened, and was adherent to the neighbouring viscera by old fibrous adhesions.

Both kidneys were deeply congested and somewhat flabby. Brain was healthy, but its vessels were deeply engorged.

In both these cases the immediate cause of death was cardiac syncope, and in both a condition of fatty degeneration of the heart was found post-mortem.

The fatty degeneration in the first case, no doubt, was due to the anæmia, resulting from long-continued hæmorrhage from a fibro-myoma of the uterus.

In the second case the condition of the heart appears to have resulted from long-continued excesses in alcohol.

Digitized by Google

ANGIO-SARCOMA OF THIGH, SIMULATING HIP DISEASE.

By Leonard W. Bickle, F.R.C.S. (Edin.), Honorary Surgeon Adelaide Hospital, South Australia.

MARTHA O'H., *æt.* 16 years, was admitted into Faith Ward on October 28th, 1902, after my visit. For the careful notes of this case I am indebted to my house surgeon, Dr. Elinor Weld.

Complaint.—Patient complains of a lump in her left leg; inability to walk; of great pain, worse at night.

History.—Three years ago patient fell off a see-saw straddle legs across a stump, knocking the inner side of her left thigh. Three days after the injury noticed a lump, which was taken to be an ordinary bruise. Took no notice of it going to school for six months, and then into service. Says she limped a bit all this time, but was never laid up. Consulted a doctor about three months ago because thigh was so painful. Has been resting the last seven weeks because pain so great; pain being in hip, shooting down to knee and toes at night. Much troubled with night startings. No splint has been applied.

Present History.—Suffers from indigestion; has had slight cough for last six months; menstruation scanty and irregular.

Family History.—Two sisters suffer from fits, otherwise good.

On Examination.—Patient is a fairly healthy-looking girl, with a somewhat pasty complexion; tem. 99, rose to 99·6 at night; pulse 76, fair volume and tension regular; respiration easy; tongue moist and coated; heart and lungs normal; urine 1026 acid, no albumen, no sugar; the left thigh looks smaller than right; no evident lump or tumour. On measurement 3 in. above patella it is found to be 1¾ in. smaller than right. There is pain on pressure on femur at this spot and also over great trochanter. Movements both of flexion and adduction of hip-joint cause pain, and are impaired. There is no shortening; no loss of gluteal fold.

October 29th.—On account of the night startings and pain with the wasting and limited movements of the hip, Dr. Weld applied an extension. As this seemed to increase the pain and distress, it was omitted.

October 31st.—On seeing case to-day for first time I found great tenderness in middle of left thigh. Careful examination disclosed an apparently small hard nodule or lump, which slipped easily under the finger. Pressure caused intense pain. It appeared to me that the whole of the symptoms were referable to this lump, which from its position and depth might be a neuroma of a branch of the anterior crural. Another possibility was a fatty tumour of the sheath of the ulnar nerve following injury, and there, though the lump was apparently small and hard, the tumour was nearly the length of the upper arm. It gave great pain when handled, and much pain at night. A fibroma or fibro-myoma following the injury was another possibility. A deep-seated small hydatid cyst was also possible, but the growth did not seem cystic enough for this idea to be seriously entertained. A chronic abscess either from degeneration of a hæmatoma or myoma was possible. With the age of the patient and the history, a sarcoma was quite possible; against this was the length of time and the slow if not absolutely stationary growth. I was more inclined to take the neuroma view, as the hip symptoms were evidently reflex. In meantime patient was ordered a mixture of iodide and bromide of potash, with complete rest.

November 2nd, 1902.—Patient complains of great pain in left loin and in thigh, crying bitterly with it. Hot water bag relieved pain. On examination, Dr. Weld found some tenderness on percussion over lower dorsal spine; no impaired movement nor rigidity. Left knee jerk somewhat increased; no ankle clonus; no alteration of sensation in either leg. Patient flinches on pressure over abdomen slightly to left and below umbilicus; slight resistance here on palpation. Patient able to walk very slowly and only by holding on to tables, etc., for support; limps much on left leg.

November 7th, 1902.—Ordered hydrarg. oleat., 10 per cent. locally.

November 13th, 1902.—Pain getting worse; lump not appreciably larger to feel. Under an anæsthetic I cut down over the site of pain and growth. The growth was much deeper than it appeared, being quite on the underside of the rectus. It was also much larger, and the original incision had to be increased to nearly six inches. The growth was largely composed of new blood-vessels, mostly venous. It extended as high up as the insertion of the pectineus muscle, and also to upper level of knee capsule downwards, and was over two inches wide. Drainage tube inserted, and wound sewed up with silkworm gut sutures. The incision healed by first intention. There was some discharge from the tube for a short while, and a slight evening temperature for a few days.

21st.—Patient going on well. No pain in loin nor in thigh.

27th.—Up on a couch.

Digitized by Google

30th.—Out in garden on a wheeled chair.

Dr. Angas Johnson has kindly made sections of the growth, and reports same to be an angio-sarcoma.

Remarks.—The interest of the case lies in the widespread nature of the pain, the wasting of muscles, impairment of hip movement, and the night startings—suggesting at first the possibility of hip disease. The size of the tumour was also a surprise from the apparently small extent from outward palpation. The growth was freely removed, and we can only await further developments and hope that no recurrence takes place, especially as the whole of her symptoms have disappeared.

CLINICAL AND PATHOLOGICAL NOTES.

A CASE OF MOLLUSCUM FIBROSUM.

THE accompanying photograph is that of a Maori, aged 60, an inmate of the Whangarei Hospital. He was admitted owing to the pain and inconvenience resulting from an ulcerating tumour on the back of the neck, on the left side. This is not shown in the photo., which was not taken until after its removal, but the position it occupied is shown by a cross. On admission he presented the appearance so well depicted in the photo., with the addition of the tumour on the neck, which was about the size of a man's fist. About ten days previously, as this tumour worried him on account of its size and position, a Maori friend suggested its removal, and with that object in view tied a stout piece of twine firmly round its base. The result was extensive sloughing of the skin, and on admission there was a large ulcerated surface which exhaled a particularly unpleasant odour.

The tumour was removed without difficulty, Dr. T. G. H. Hall kindly giving the anæsthetic. It weighed more than half a pound, and was a typical fibroid. The wound healed well, but not by primary intention, owing to tension and to the fact that the suture had to be passed through small fibromata in every instance.

The patient was so pleased with the success of the operation that he requested me to remove another tumour, situated in the left temporal region. This was a decided compliment to the skill of the "pakeha," as Maoris are, as a rule, very averse to surgical operations.

The tumour in question had been slowly growing for 10 years, and he attributes it to the extraction of a tooth about that time. It was accordingly removed on August 11th, Dr. Hall again giving the anæsthetic and assisting. It had no connection with the skin, but was situated beneath the temporal muscle, and in close apposition to the bone.

It was not a fibroma. In appearance and consistence it resembled a salivary gland, but as unfortunately no microscopic examination was made I cannot express an opinion as to its exact nature. Perhaps some of your readers who have met with a similar tumour in this situation can inform me as to its probable pathological entity. To revert to the photograph it will be seen that the skin of the chest, abdomen and back is covered with small tumours, which vary in size from a pea to a pigeon egg. There are numerous tumours also embedded in the skin of the scalp and upper and lower extremities; but in these situations they are not quite so plentiful as on the trunk, and there are areas of healthy skin between.



BACK OF MAORI WITH MOLLUSCUM FIBROSUM.

G. BRUTON SWEET, M.B., Ch.M. (Syd.).
Whangarei Hospital, N.Z.

The Sydney and Prince Alfred Hospitals have each received £700, being a further instalment of a bequest from the estate of the late Adam Guy Flavelle.

Digitized by Google



STONE REMOVED FROM MALE BLADDER.



STONE REMOVED FROM FEMALE BLADDER.

LARGE STONES REMOVED FROM THE MALE AND FEMALE BLADDERS.

The above stones are photographed to exact size, and are published for any interest their size and weight may be. The larger one (3½ ounces) was removed from the male bladder by supra-pubic operation; the smaller triangular stone was removed by vaginal operation, and weighs 1¼ ounces.

Richard Jones, L.R.C.S., L.R.C.P. (Irel.),
Hon. Physician to the Bendigo Hospital, Vic.

MYIASIS OF A PHARYNGEAL DIVERTEKEL.

Mr. L——, *æt.* 24, clerk, born in South Australia. Has been in Sydney one month, in Broken Hill four months, otherwise never out of the colony. *Past history.*—Measles 20 years ago. Four years ago had pleurisy in left side, recovered, but a cough has persisted since then. Five weeks after this attack he ran after a car. Hæmorrhage followed this exertion, and about one pint of dark-coloured blood was "spat up." This contained "block strings" in it. He had no relapse, and speedily got well, and began to gain in weight. One year ago he was lifting some heavy weights when he "spat up" about one ounce of blood, and for a week or two afterwards his phlegm was blood-streaked. On April 30th of this year at 9 a.m. he had a tickling in his throat. This was followed by a "fit of coughing" from five to ten minutes, when a big piece of phlegm was expectorated upon the floor. His brother, who was present, noticed the "phlegm move," so he picked it up, put it into a bottle, and brought it to me for examination. He has not had any expectoration since, and his throat has been much easier. On examination results of old pleurisy heard on left side, and posteriorly, right side normal, heart normal. Nothing could be found in the throat. On examination of the expectorated mucus a "maggot" of the blue-bottle fly was discovered.

E. Angas Johnson, M.D.
Adelaide, S.A.

A PHENOMENAL TEMPERATURE.

On December 15th, 1902, I was called to see J.G., *æt.* 18, living 12 miles out of town, a farmer's son.

I found a big, well-developed young man suffering from an attack of acute vomiting and diarrhœa, of which an epidemic was then scouring the country. Temperature, 107·8° F. Not delirious; skin very dry; tongue glazed

Digitized by Google

dry; abdomen tender to palpation; intense thirst; amorexia; bowels moving every half-hour, motion consisting of blood and mucus. Despite the temperature, this boy had been going out in the rain across the yard to stool at every call of the bowels. A mixture of bismuth and astringents was prescribed for the diarrhœa and tepid sponging every hour for the temperature. Next day the father called to say the boy had slept well most of the night, felt much better and wanted to get up, and was hungry.

On first observing the temperature I thought my thermometer had gone wrong, so took three readings, all of which were the same, and tested the instrument on my return home.

The boy's mother said he was cooler when I saw him than he had been two hours previously.

FRANCIS W. WEST, M.B., Ch.M. (Syd.).
Camden, N.S.W.

RUPTURED TUBAL GESTATION.

A RUPTURED tubal gestation originating in the proximal portion of a left tube whose distal extremity had been occluded by a previous ruptured left tubal gestation recently came under my observation.

This case is worthy of report, being in a way similar to a case reported by Dr. Hinder in the *Australasian Medical Gazette* of August, 1902. In Dr. Hinder's case the closing of the distal end of the tube was due to a previous operation, whereas in my case the vis medicatrix naturæ had been the active agent. In both cases impregnation must have occurred from the opposite ovary, and the impregnated ovum have travelled across the fundus uteri. In my case rupture had taken place some weeks before I was called in, and frequent bleedings into the secondary sac had taken place. The operation was made exceedingly difficult and tedious by the extensive old and new adhesions, and the absence of Trendelenburg's position.

The right ovary and tube were left untouched, it being necessary from the patient's condition to complete the necessary manipulations as soon as possible.

As I had to leave the patient, and because of the ragged, semi-organised secondary cyst wall remains, which could not be removed, I put in a gauze drain.

The convalescence was protracted but continuous, and I had the pleasure of seeing the patient a fortnight ago, when I found that all sign of inflammatory thickening on the right side of the pelvis had disappeared, and the uterus and right ovary were apparently normal in position and function. She had menstruated normally for the previous two months. Strangely enough, a married sister had some few years ago died shortly after operation for a ruptured extra uterine pregnancy; while, as before mentioned, she herself had some six years before recovered without operative interference from a similar condition.

FRED. J. T. SAWKINS, M.B., Ch.M. (Syd.).
Sydney.

MIRROR OF HOSPITAL PRACTICE IN AUSTRALASIA.

PEAK DOWNS HOSPITAL, QUEENSLAND.

A CASE OF CONCURRENT JEJUNAL OBSTRUCTION AND APPENDICITIS.

(Under the care of H. Zwar, M.B., Ch.B. Melb., Resident Surgeon.)

J.R., *æt.* 76, was admitted to Peak Downs Hospital September 10th, 1902, at 3 p.m.

History.—He went to bed in his usual state of health on September 9th. Next morning he awoke with a severe abdominal pain and vomiting. The vomiting was severe all through the morning, but had ceased when he reached the hospital. He had a similar attack four months ago, from which he recovered. His bowels had not been open for two days.

On Examination.—Pulse 108 and full, arteries quite rigid, respiration 24, temperature 99·2; moderate distension, most marked above the umbilicus; knees drawn up. Pain increased on pressure, especially over appendicular region, where there was also some muscular rigidity. Diagnosis lay between obstruction and appendicitis.

I decided not to operate. Pulv. ipecac. co. gr. x. was given, and two large soap and water and asafœtida enemata, which brought away some small, hard fæcal lumps, and he expressed himself as more comfortable. At 7 o'clock his pulse had gone up to 120, temperature 100·2, and respirations had also advanced. At 10 p.m. his condition was worse; he complained of pain, and his respirations were between 30 and 40 and the pulse between 130 and 140. Morphia ⅓ gr. was ordered hypodermically. He slept till 12, when he again complained of pain, and another ⅓ gr. morphia was ordered. He slept till 1 a.m., when he awoke with fæcal vomiting (the first since admission) and died soon after.

Post Mortem.—A large loop of the jejunum was discovered about 18 in. from duodenal end.

Digitized by Google

At the crossing the upper piece of gut compressed the piece it lay on completely. Below this the bowel was collapsed; above, it was enormously distended and congested. There was no peritonitis. It was a matter of surprise to me how the obstruction could have been caused by such a simple twist, especially as the loop was a large one; further, the symptoms of obstruction were acute, whereas from the condition one would have expected them to have started more gradually.

On examining the appendix it was found to be quite stiff and the serous coat infiltrated with serum so that a "cuff" could be turned up most readily—a catarrhal appendicitis. There were no fæcal concretions The appendicular condition evidently accounted for the temperature, which was the confusing element in the diagnosis of obstruction.

Probably the man's life could have been saved by operative interference in the first instance, only to die a little later of senile decay, and in the meanwhile be a burden to some benevolent institution. Such a prospect is no incentive to risk the giving of chloroform in an old man with "wiry" arteries and the probability of vomiting during anæsthesia.

REVIEWS AND NOTICES OF BOOKS.

MEDICAL ETHICS, a Guide to Professional Conduct. By Robert Saundby, M.D. (Edin.), F.R.C.P. (Lond.). Bristol: John Wright & Co. London: Simpkin, Marshall, Hamilton, Kent & Co., Ltd.

Dr. Saundby has done well to give us a new work on medical ethics. The changes which take place and the new points which constantly arise in practice make it desirable that the old ethical rules should be revised and new ones formulated from time to time. The author tells us that his pages are founded for the most part upon actual cases and decisions which have been given in the leading medical journals during the past five years, and that it is the experience which he has gained in dealing with such questions for a good many years that has emboldened him to write this book. He does not claim infallibility for the rules laid down, but he says that "considerable care has been taken by submitting them to a large number of experienced persons to make them representative of the best professional opinion." This is satisfactory, and affords a good guarantee that we may safely follow his guidance. A useful appendix contains extracts from the by-laws and regulations of the general medical council and medical corporations of Great Britain relating to the conduct of members of the medical profession.

The ordinary well-recognised rules of professional conduct in this code do not differ materially from those to be found in Dr. de Styrap's well-known work. They require no comment. The part of the book which will be of interest to the Australian medical practitioner is that which deals with the relations of medical practitioners to friendly societies. The association of a medical practitioner with a medical aid society which systematically practices canvassing and advertising for the purpose of procuring patients is emphatically condemned. As to the "wage limit" question, which here as in England is such a burning one, Dr. Saundby thinks that the difficulty would be got rid if the provident sick societies would throw their work open to any medical practitioner selected by the patient who would be willing to accept the society's scale of payment. This is actually done by the National Deposits Friendly Society, which "has no contract with its medical officers, but pays according to a published scale of fees." Any person may join the society, but he has to find a medical practitioner willing to take him at the society's rate, which he is not likely to be able to do if he is well off. In answer to the objection that may be made to this plan that club work would be so split up that no one would care to take it, the author points out that "in Germany under the State system of workmen's insurance, the workmen are free to go to any practitioner, who must see them for the first payment of a mark, yet it appears that those doctors who lay themselves out for this work get practically the whole of it, although there is nothing to prevent workmen going to anyone they please." Dr. Saundby thinks that it is reasonable to expect that similar results would follow elsewhere if the same method of payment were to become generally established.

The proper course of action when consulted independently of the patient's ordinary medical attendant is discussed. The author says: "If a medical practitioner is in attendance the consultant should point out the desirability of his being allowed to communicate with him, and if this permission is given should put his conclusions in writing and enclose a prescription to the medical attendant. If, however, the patient refuses to allow him to do this the consultant has no right to disregard the patient's wishes. If the patient obviously ought to be treated in bed the consultant should insist on the co-operation of the medical attendant, or if the latter has become for any reason quite unacceptable he must point out that he cannot take sole charge of the case, and that another medical man must be obtained." As to the views of extreme men who claim that "no one who has once been under their care, or towards whom they may claim to stand as family medical attendant, has the right to consult anyone else without their permission," Dr. Saundby points out that "the public will not agree to this limitation of their liberty, and consultants refuse to be bound by such a rule." These views accord very closely with those expressed by us in the *Australian Medical Gazette* some time ago, and must commend themselves, we think, to all reasonable men.

On the question of consultation with homœopathic practitioners, the author expresses the opinion that consultation is permissible between all duly qualified medical practitioners irrespective of the theories held by them. For our part we are unable to see how a consultation between an allopath and a homœopath in a purely medical case can be of advantage to the patient (the consideration which must always be paramount, unless one of the parties is prepared to surrender his particular therapeutic views. We have not space to refer to other subjects, such as the propriety of medical communications to the lay press, professional secrecy, the need of caution in prescribing alcohol and narcotic drugs, etc., but perhaps sufficient has been said to indicate the manner in which the author treats his subject.

The whole book is interesting and instructive. The matter is arranged alphabetically, and there is a good index which will enable the practitioner to turn at once to the particular subject on which he seeks guidance. The type is clear, and the whole get-up

Digitized by Google

attractive. We venture to predict for the work a large circulation and the probability of its becoming the standard work of reference in the English language on the subject of medical ethics. P.S.J.

SURFACE ANATOMY. By Bertram C. A Windle, F.R.S., M.D., etc., Professor of Anatomy in the University of Birmingham. London: H. K. Lewis. 1902.

A very useful little book, but more likely to be read by the senior student than by those in their final and second years, as recommended in the preface. No part of anatomy is, as a rule, so carelessly taught as surface anatomy, and consequently there are many divergences in the various books. It is hardly likely, therefore, that everyone will agree with all that is given in Professor Windle's book. He quotes Tillaux as stating that in the adult, the head being in the ordinary position, 2¾ inches of trachea lie above the sternum, whilst Holden gives 1½ inches, which is surely more nearly correct. The statement that the angulus Ludovici corresponds in level with the lower border of the fifth dorsal vertebra is probably a misprint, as fourth is given on another page. Another misprint, probably, is the statement that at birth the child is ¼th the height it will ultimately attain to. As the line drawn from the highest point of one iliac crest to the other usually passes through or just below the umbilicus, the line now usually taken for the purpose or delimitation is one drawn between the highest points of the crests seen from the front. Anatomists cannot even agree as to the precise location of the internal abdominal ring. Cunningham states that it lies half an inch above Poupart's ligament at a point midway between the symphysis pubis and the anterior superior spine of the ilium. This is over the line of the external iliac artery. Windle agrees with most authorities in placing it half an inch above the middle of Poupart, and, therefore, external to the line of the artery, but in his diagram figures it as internal. The description on page 67 of the pylorus is difficult to follow. However, on the whole, the senior student is likely to find Professor Windle's book of great value. A.A.P.

DEATH AND SUDDEN DEATH. By Professor P. Brouardel and F. Lucas Benham, M.D., B.S. (Lond.) Second edition, 1902. London: Baillière, Tindall and Cox. Sydney: L. Bruck.

This is a translation by Dr. Benham, of Exeter, South Australia, of the work of Dr. Brouardel, who for the past 20 years has filled the post of director of the morgue in Paris. The work is divided into two parts, the first of which is concerned with the consideration of the signs of death. After dealing with such conditions as rigor mortis and the various stages of putrefaction, this part is brought to a close by two chapters, the one on the subjects of cremation and mummification, and the other on legislation and its medico-legal applications. In the chapter on mummification we find a very complete and interesting short account of the work of M. Menguin, who by his careful study has been able to estimate with wonderful accuracy the duration of death in bodies, in some instances several weeks and even months dead. He divides the subject into four periods: In the first, quaternary compounds are attacked and destroyed; in the second, fatty substances; in the third, the soft parts are liquified; and in the fourth period the dried mummy is filled with mites. All these stages in the process of decomposition are carried out by separate and distinct species of insects. The second part of the book is taken up with a description of the various lesions of the different bodily systems which are at times associated with sudden death in the midst of apparently good health. This part is replete with innumerable instances of sudden death in various conditions, the details of which are pithily and clearly described. This book is one which should be read by all students of medical jurisprudence, and will be found full of interest to those particularly whose work brings them in contact with the coroner's court. The translation has been admirably executed by Dr. Benham, who has in places supplied further details from his own experience and from other authorities. S. J.

AMERICAN EDITION OF NOTHNAGEL'S ENCYCLOPEDIA OF PRACTICAL MEDICINE. By William P. Northrup, M.D. DIPHTHERIA, MEASLES, SCARLATINA, GERMAN MEASLES. By Theodore von Jürgensen, M.D., Professor of Medicine at the University of Tübingen. Edited with additions by William P. Northrup, M.D., Professor of Pædiatrics in the University and Bellevue Hospital Medical College, New York. Illustrated. Philadelphia and London: W. B. Saunders & Co. Melbourne: Jas. Little. 1902. Price, 25s.

The editor explains in his preface that it has been necessary to substitute for Prof. Jürgensen's article on diphtheria one written by Prof. Northrup, owing to an arrangement made by the German author to issue a translation of his article apart from this series. Professor Northrup in his preface says: "Beginning his work as pathologist at the New York Foundling Hospital when the first bivalve tubes were used, and having been associated with Dr. O'Dwyer at every step in the perfection of intubation tubes, the author has fulfilled a labour of love in presenting a complete description of this aspect of the treatment of diphtheria as a memorial of appreciation of his colleague and friend, Joseph O'Dwyer." Consequently, by far the most valuable part of this article is that dealing with intubation. The author describes the various steps in the evolution of the intubation tubes as we now have them: the many different forms used, the many disappointments, and finally the great success achieved. O'Dwyer took infinite pains to perfect his procedure, and worked at it for years. The author gives us a full and detailed description of the operation, and his text is illustrated by many very useful illustrations. There are photographs of the operation in the different stages, and skiagrams showing intubation tubes and tracheotomy tubes *in situ*. The rest of the article is very full, and evidently written by one who is thoroughly familiar with the practical side of the subject. The other articles in this book, on "Measles," "Scarlatina," and "German Measles," have been revised by Professor Northrup, who has added paragraphs when necessary to bring them up to date. They are very complete, and practically contain all that can be said on these subjects. J.M.G.

SCARLET FEVER ANTITOXIN.—Some Viennese investigators are meeting with encouraging success in their efforts to prepare for scarlet fever an antitoxin similar to that which has proved so successful in the treatment of diphtheria. Already a serum has been prepared which reduces the mortality from scarlet fever to two-thirds of its usual amount, but it is still too weak in antitoxin to give the best results. There is every indication that within a year or two a scarlet fever antitoxin will be produced quite fit to take a place beside the cure for diphtheria.

AT a meeting of the committee of the Melbourne Hospital it was decided that one of the wards in the hospital should be named after Miss Amy Castles for her kindness in arranging the concert which yielded £250 to the hospital fund.

Digitized by Google

THE AUSTRALASIAN
MEDICAL GAZETTE.

SYDNEY, 20TH JANUARY, 1903.

THE DOCTOR'S HOLIDAY.

WITH this, our first issue for the year 1903, we wish all our readers a happy and prosperous New Year. Another year of work has passed, and we are on the threshold of a year which promises to be one of trial and suffering to many. The crippling of our staple industries by the severe and prolonged drought, and the excessive heat, renders the outlook for commercial prosperity anything but hopeful at the present time, and coincident with commercial depression there is generally a diminution in the doctors' incomes, though not necessarily in the amount of his work.

In the busy routine of the general practitioner's life, particularly in the country districts, there is often little time for profitable study or healthful relaxation. Yet these two factors are most important ones in maintaining the mental and physical efficiency of the practitioner of medicine. At this time of the year, when the public at large seek rest from work, and recreation in change of scene and climate, the work of the general practitioner goes on just the same. The summer season, with its severe heat and sudden changes of temperature, determines the prevalence of a large amount of gastric and intestinal disorder, particularly in children, which demands all the skill and attention the practitioner can command.

A complete rest from work and change of scene is perhaps more necessary for the busy doctor than for any other member of the community. The incessant wear and tear, Sundays and weekdays, from one year's end to another, is exhausting to the strongest amongst us, and no one can deny the importance of a holiday at least once or twice a year for a fortnight or more. It is no doubt often difficult for the practitioner in town or country to get away from his work just at the time he may be most needing a rest. Exacting patients sometimes resent the absence of the doctor on holiday, and appear to think that such a thing as a holiday for a doctor is quite unnecessary; as a consequence, the doctor is loath to leave his practice for fear of losing a good patient. Then, again, it is not infrequently difficult to secure an efficient and reliable *locum tenens*, and rather than leave his practice in the hands of an unknown "locum" the doctor remains at home.

While we emphasise the necessity of every medical man having a holdiday each year, that is, a complete rest from all professional work, in cases where this is difficult of attainment for various reasons, would it not be possible by a system of interchange of practices to enable any medical man to have at any rate a change of scene and climate for a month or so every year at a minimum of expenditure of money and worry? Why should it not be possible to arrange for Dr. A., who lives in a country town, to come to the metropolis and take charge of Dr. B.'s practice for a month, while Dr. B. goes to the country and takes Dr. A.'s practice? We think such an arrangement would be mutually beneficial. The country doctor would have the opportunity of meeting with the practitioners in the metropolis, of seeing some of the work in the larger hospitals, and of gaining an insight into city practice. The city practitioner, on the other hand, would be able to enjoy the more free and open air life of the country, and perhaps have time for some outdoor amusements, such as shooting or fishing, which he is not able to enjoy when at home. We should be glad to get the views of our readers on this proposition, but in the meantime we hope that all will have a holiday of some sort, and enjoy themselves.

Digitized by Google

HOSPITAL ENDOWMENT.

In consequence of the heavy deficit in the Victorian Government finances, and the retrenchment scheme proposed by the Irvine Cabinet, the hospitals in Victoria are in sore straits how to make both ends meet. A reduction in the charity vote of £20,000 must involve the practising of severe economies in the management of the public hospitals and charities; and while we hope that these economies will not lead to any impairment in the utility of the hospitals or any detriment to the patients, yet it is obvious that hardship must be experienced somewhere.

A deputation recently waited on the Treasurer to point out the seriousness of the position, but they received no assurance of any help from the Cabinet as a body. Mr. Shiels, however, in replying to the points raised by the deputation, remarked that in his opinion the charities should have an independent endowment, and that this might be raised by placing a penny tax on every ticket for theatres, races, sports, etc.; this, with a tax on the totalisator, would produce an income of £120,000 per annum.

Whatever views we may hold on this proposal it is certainly desirable that our public charities, and particularly our hospitals, should if possible have an endowment or an income independent of the State Governments. So long as the hospitals have to depend very largely on Government grants for their maintenance they can hardly be conducted on the most advantageous lines. While one Government may be generous, spending money lavishly, thus leading the hospital committees to extend their operations for the benefit of the patients, another Government comes along with, perhaps, more economical views, and under financial straits reduces the amount of the hospital grants, and thus hampers the committees in the conduct of their work and perhaps impair the usefulness of the hospitals.

We would appeal for large endowments which would render the hospitals independent to a great extent of the Government Treasury. If a tax as suggested by the Victorian Treasurer would realise £120,000 per annum, then a sum could be easily raised sufficient for the purpose, for no one would feel a penny tax on tickets for amusements, and the hospitals would be placed upon an independent footing. If such a proposal be impracticable, the philanthropic public should be induced to endow wards or beds, and thus provide the hospitals with an income not dependent upon the whims and fancies of passing governments, but one adequate to enable the committees to conduct the hospitals along the lines of modern development without let or hindrance from financial difficulties. We fully recognise the generosity of the State Governments toward the hospitals in the past, but it seems a mistake to be obliged to fall back on the public purse for money to enable hospital committees to make alterations in the structures rendered necessary by the increase in the amount of work done at these institutions, or by reason of the advances in scientific developments in medical and surgical treatment.

THE MONTH.

Special Notice to Members of the New South Wales Branch of the British Medical Association.

Members of the New South Wales Branch of the British Medical Association are requested to pay their annual subscription of £2 2s, now due, to Dr. W. H. Crago, hon. treasurer, of the Branch, as heretofore, pending the adjustment of any alterations that may be necessary under the newly adopted Constitution and Articles of Association of the Home Association.

A Medical Defence Fund.

In October last, acting upon a resolution of the Branch, circulars were sent to members of the profession generally in New South Wales

Digitized by Google

(about 600 in all) to ascertain their views as to the establishment of a special fund, the object of which would be the strengthening of the position of medical practitioners holding lodge appointments in withstanding any unjust demands made upon them by their employers, by affording them some pecuniary aid should they find it necessary, *in the interests of the profession*, to throw up their appointments. This scheme, therefore, appeals not only to those engaged in lodge practice but to all. Up to the present some 200 responses have come to hand, all but a small minority agreeing as to the desirability of such a fund. It is considered very important that an expression of opinion should be received from all medical men in the State—at any rate from all members of the Association—so that some idea can be formed as to the practicability of the scheme. Those members, therefore, who have not already done so are requested to communicate with the hon. secretary at once, so that this matter may be brought before the Branch for settlement one way or the other at an early date.

The Examination System.

In an address delivered at the annual meeting of the Medical Students' Society of Melbourne University, Dr. Barrett said: "I regard examinations with abhorrence. They are evils, though unfortunately necessary evils. They are objectionable because they are a test, and a partial test only, of a kind of knowledge which is usually manufactured to a great extent for examination purposes. It is perfectly true that the possession of this knowledge frequently goes hand in hand with the possession of other forms of knowledge, which are valuable in the conduct of life. But the necessity of passing an examination is the cause of a great waste of time and energy." With these remarks most of us will agree, although the remedy for this state of things is not obvious. We believe that in the future the character of the student's work during the year and certified to by his teachers will have a great deal more weight than it has at present in deciding the "pass" or "pluck" of the student in his examinations.

Civilisation and the Decreased Birth-rate.

The *Medical Press and Circular* in a recent issue remarks that the birth-rate slowly but surely diminishes in proportion to the advance of the community along the path of civilisation. During the 20 years ending 1895 the birth-rate in Germany fell from 42 to 36, and in England from 36 to 29. In France the fall is less perceptible, amounting only to ·8 per cent. (26 to 25·2). Young people are no longer content to wed under conditions which satisfied their predecessors. Possible bridegrooms no doubt take into consideration the question of providing for their offspring, and the cost of educating children up to the present standard imposes on the parents burdens previously unknown. Another circumstance which cannot but have a powerful effect on the inclination to marry is the gradual emancipation of woman. Hitherto marriage has in a great measure been the only "occupation" for which women were trained, and for which they were in any sense fit. The very fact that women now enter openly into competition with men in walks of life previously restricted to the latter tends to reduce the number of possible husbands by reducing the sum total of salaries earned by them.

An Interesting Document.

A correspondent has forwarded to us a circular which is of sufficient interest to reproduce, suppressing, of course, the name and address of the enterprising lady:—

Madame ——— desires to inform scientists, doctors, surgeons and others that she is prepared to give information, by her gift of Psychometry, regarding the past history of any substance, or whether a patient is being treated for the right disease, and if treatment is correct; also as to recovery from same. Advice given as to success in personal and business matters.

INSTRUCTIONS.

Questions relating to personal or business matters, send something belonging to inquirer.
If of a substance, send small piece of same.
Re patient, a small piece of hair, or handkerchief used by patient, *which must not be washed.*
Handle article as little as possible, and place in separate envelope. State definite questions.
Fee: 5s. each. All communications are strictly private.
As a personal interview is not necessary, such will not be granted unless specially arranged for.

Treatment of the Insane in Melbourne.

The necessity for the establishment of a receiving-house for the temporarily insane has been frequently insisted upon in Melbourne, but the want has not yet been supplied. The urgent need of it has been further illustrated when two cases of mental disease were dealt with recently at the City Court In the first a woman, who deserted a child entrusted to her care, was presented, and medical evidence showed that she was an imbecile, but harmless. The other case was that of a clergyman who attained his M.A. degree at Edinburgh, and was suffering from temporary mental derangement. According to the evidence he was a less fit subject for incarceration in a lunatic asylum than the previous case, but

Digitized by Google

owing to the fact that he had no friends, and to the non-existense of a receiving-house, he had to be sent to Yarra Bend Asylum.

Sir T. Lauder Brunton.

Dr. D. C Gresswell, president of the Victorian Branch of the British Medical Association, recently forwarded a cable message on behalf of the medical profession of that State tendering their sympathy with Sir T. Lauder Brunton in his illness. Dr. Gresswell has received a reply from Sir Lauder Brunton thanking the Victorian medical men for their kind message.

Economy in the Melbourne Hospital.

The managing committee of the Melbourne Hospital has been practising rigid economy, with a view to keeping the expenditure within the limits of the revenue. It has been decided that poultry, as an article of diet, shall be dispensed with and rabbits substituted.

Institute of Colonial Medicine in Paris.

Under the directorship of Professor Brouardel, an Institute of Colonial Medicine has been recently established in Paris for the purpose of theoretical instruction and clinical demonstration in tropical diseases. The syllabus includes a course of instruction by Professor Chantemesse on bacteriological and hæmatological technique; one by Professor Blanchard on parasitology; one by Professor Le Dentu on tropical surgery; one by Professor de Lapersonne on tropical ophthalmology; one by Professor Wurtz on tropical hygiene; and one by Dr. Jeanselme on tropical skin diseases. The Dean of the new school is Professor Deboue.

The Training of Nurses.

A proposal is on foot for a reciprocal arrangement between the Prince Alfred Hospital and the Benevolent Asylum, Sydney, which, if adopted, would permit of the nurses of the two institutions interchanging for short terms, so that the Prince Alfred Hospital nurses may gain a knowledge of midwifery, and those of the Benevolent Asylum may obtain an insight into general hospital methods, especially with respect to gynæcology.

Rats in Melbourne.

The combined efforts of the municipalities to exterminate rats in view of the danger of plague infection ceased in the Melbourne metropolitan area about April last. The rats have again multiplied until now they have overrun the city and would be a source of great danger in the event of a recurrence of plague. In the event of bubonic plague being again threatened the municipalities will take combined action.

BRITISH MEDICAL ASSOCIATION NEWS.

PROCEEDINGS OF AUSTRALASIAN BRANCHES.

New South Wales.

The regular monthly meeting of the Branch was held at the Royal Society's Room on Friday, December 12th, 1902, Dr. Brady, vice-president, in the chair. There were 40 members present.

The minutes of the previous meeting were read and confirmed.

An apology was received from the president for his non-attendance.

The Chairman announced the election of Drs. J. Farrington, C. C. Cocks, Marco Giommi, E. S. Hawthorne and John Leva.

Dr. Barrington read a paper on "Hydroperitoneum in Pelvic Disease." (See page 5.)

Dr. Worrall said he could not allow so important and valuable a paper as Dr. Barrington's to pass without comment. He was inclined to think peritoneal irritation was a greater factor than interference with the circulation in producing hydroperitoneum. Thus we commonly saw it associated with solid tumours of the ovary, in which there was a minimum of interference with the circulation of the pelvis, and a considerable amount of irritation. He had seen it in conjunction with almost every variety of pelvic disease, even uterine myomata, although not always to a marked degree. He wished to draw attention to the occasional association of hydroperitoneum and hydrothorax, and it was not always the case that when such association existed the underlying condition was malignant. He had seen a case of fibroma of the ovary with hydroperitoneum and hydrothorax. The latter was aspirated many times, but permanent cure when such a condition has become chronic seems to be hopeless, and proved to be so in this case. The fibroma of the ovary was finally removed by another surgeon, but the patient died, apparently of exhaustion. Another point he wished to make was that in operating for hydroperitoneum, depending upon tubercular peritonitis, or any other condition, the surgeon must not be tempted to flush out the peritoneal cavity. The presence of hydroperitoneum clearly proved that the peritoneum was unable to deal with its own fluid. Its absorbtive power was impaired. To add more fluid, therefore, under such circumstances would be strongly contraindicated.

Dr. Stewart McKay said that Dr. Barrington had considered his subject so completely that there was little to be added to the list of conditions with which hydroperitoneum was associated. But though we know the conditions in which the outpouring of fluid occurred, we, in many cases, did not know the cause. He could not agree with Dr. Worrall that mechanical irritation was the cause when solid benign ovarian tumours were present, because other pelvic tumours were only exceptionally accompanied by hydroperitoneum. However, in the cases described by Doran as papilloma of the Fallopian tube, the effusion appeared to be due to irritation, because in one case the fimbriated end of the tube was closed and there was no hydroperitoneum; while in the second case the Fallopian tube was open, and a mucoid material dropped from the ostium, and thus probably set up irritation and accounted for effusion. With regard to Dr. Barrington's classification that ascites was due to extraperitoneal causes, while hydroperitoneum was due to intraperitoneal causes, he might

Digitized by Google

draw attention to those cases where we found a considerable quantity of peritoneal fluid when we had a fibroid of the uterus, accompanied by intercurrent heart or kidney disease, directly due to the presence of the fibroid. Lastly, Dr. Barrington had omitted to mention those cases where a degeneration of a myoma of the uterus excited a local effusion of fluid in the pelvis, which was often found encysted.

Mr. Barrington thought that mere mechanical irritation of the peritoneum would not suffice to explain why, with a solid ovarian tumour the size of one's fist, the cœlom should be found full of fluid while a much larger and very movable sub-peritoneal myoma had no accompanying effusion, and, he submitted, the entirely different mode of circulation in the organs in which they originated was not an unreasonable way of explaining the difference when applied to solid ovarian growths. The association of hydrothorax in addition to hydroperitoneum increased the suspicion of malignancy, but there were undoubted cases of this combination, where the causal catarrhal salpingitis, tubal papilloma or ovarian fibroma on being removed, the hydrothorax completely cleared up, and the patient remained permanently well, despite the statement in a well-known textbook that such an association pointed to undoubted malignancy and precluded operation. The resultant effusion in cases of uterine myomata with heart or kidney disease he should be inclined to call ascites, as dependent on the general passive cause, uterine myomata *per se* rarely being an active irritating cause in the production of intraperitoneal exudation. He had purposely restricted himself to collections of fluid—free and diffuse—in the cœlom, preferring to classify the serous collections so commonly found in operating on long-standing cases of inflammation of the appendages as encysted serous perimetritis and similar accumulations, the result of tubercular disease as encysted tubercular peritonitis.

Dr. Hankins exhibited foreign body as removed from the ear by a new method.

Dr. Sawkins read a paper on "Anæsthesia in Abdominal Surgery." (See page 10).

Dr. Jamieson read a paper on "Two Cases of Death Under Ether." (See page 15).

Dr. Stewart McKay said that the subject of Dr. Sawkins' paper was of very great importance to those who were continually performing abdominal sections. After studying Crile's work on Shock and Leonard Hill's work on the Compensatory Mechanism of the Circulation, he had almost abandoned chloroform as an anæsthetic when performing abdominal sections, because it was obvious that shock to the abdominal surgeon meant a dilatation of the blood-vessels of the splanchnic area, and Hill had conclusively shown that chloroform had the power to almost completely abolish the compensatory mechanism of the circulation. Those two factors accounted for the rapid pulse so often met with after a section, but that was less liable to occur if ether were administered during the operation in place of chloroform. He did not agree with the administration of alcohol before or after the anæsthetic; if ether was used the alcohol was not necessary; if chloroform was employed the alcohol only increased the poisonous action of the chloroform. He employed strychnine largely, and now also used adrenalin; but he warned those not accustomed to the employment of this last drug not to administer it hypodermically in larger quantities than five minims, because on one occasion he had almost stopped a patient's heart after administering fifteen minums, and he had to employ nitrite of amyl to relieve the peripheral resistance.

Dr. Litchfield thanked Dr. Sawkins and Dr. Jamieson for their papers. Dr. Sawkins had dealt very ably with his subject, but might have referred more fully to the danger of chloroform anæsthesia in the early stage of the administration. The great majority of deaths from chloroform occurred in the first few minutes. This tendency to sudden heart failure at the beginning of the administration was observed also in animals. Leonard Hill attributed this to the directive action of chloroform on the heart muscle, while Embling attributed it to early stimulation of the inhibitory mechanism of the heart in the medulla; but, whatever the cause, there was no doubt about the fact, and he could hardly see the rationale of giving chloroform in the first stage and then proceeding with ether. He preferred to give ether right through from beginning to end. Ether was largely used at the Children's Hospital by the open method, and he had not seen any harm result either immediately or remotely. The cases reported by Dr. Jamieson were interesting, but were not to be taken too seriously. The patients were in a bad state of health to begin with; they both had extensive fatty degeneration of the heart, and were both subjected to the strain of a severe operation. It was questionable whether the ether was responsible for the deaths at all.

Dr. Sinclair Gillies doubted the utility of such discussions. Several had taken place of late, but the chloroformist still stuck to chloroform and the etherist to ether. In choice of anæsthetic, the two most important points to consider were the safety of the patient during the operation and his condition after. He would advise those who thought chloroform much more dangerous than ether to read Surgeon-Colonel Laurie's book on chloroform. Laurie had had over 17,000 cases with one death. If Laurie's instructions were followed, never to continue the administration when there was any struggling, irregular breathing, holding the breath, or attempt at vomiting, he considered that there was little risk in the administration. Deaths in the great majority of cases took place within the first ten minutes of administration, *i.e.*, the struggling stage. This being so he considered that those who advocated getting the patient partially under with chloroform and continuing with ether, took all the risk of chloroform, and missed its advantages. In prolonged operations the condition of the patient at the end of the operation was always better when chloroform was used, and nurses almost invariably stated that there was less trouble from collapsed shock after chloroform than ether. Dr. Gill, of St. Bartholomew's Hospital, and others held that prolonged etherisation through excessive stimulation brought on collapse, which might be sudden, and made it a rule never to give ether for more than 30 to 40 minutes, changing after that time to chloroform, with the result of slowing and improving the patient's pulse. This he had seen done many times with good result, though here it was considered a dangerous procedure. In giving ether he considered the previous administration of a small hypodermic of morphia to be of great use in preventing excessive flow of mucus and in lessening the amount of ether necessary.

Dr. Todd, speaking as a patient with experience in taking ether as an anæsthetic, noted that Dr. Sawkins, in referring to the unpleasant operations, sometimes resorted to swabbing away secretions from the patient's fauces and making traction on his unfortunate tongue, had omitted to remind his hearers that recourse to these procedures would seldom, if ever, be needed if the patient recognised that he could inhale the ether quite effectually through his nostrils alone.

Dr. Quaife agreed that there existed great difference of opinion as to the merits of chloroform and ether as an anæsthetic, and the discussion they had heard that night

Digitized by Google

confirmed him in Lord Lister's advice to his students in Glasgow, which was to "watch the respiration," and the speaker during his 30 years' practice had reason to testify to the wisdom of Lord Lister's advice. The anæsthetist had the responsibility of a life under his care, and his whole attention should be devoted to his work, all talking being forbidden. With reference to the administration of morphia, he could not recommend the practice. According to a late report, Lord Lister still holds the same views.

Dr. WADE thought that all who had given any number of both anæsthetics, viz., chloroform and ether, would agree with Dr. Sawkins in his preference for the latter. There were a few points in Dr. Sawkins' paper on which he would like to touch. First, as to the degree of anæsthesia which he induces, it was not necessary to push the anæsthetic beyond a degree of light anæsthesia, viz., to that where the pupils are contracted and corneal reflex just present, as that is sufficient to do away with all reflex shock, and provided there is a clear airway would not cause any tightening of the recti muscles. As regards the preliminary anæsthetisation with chloroform, that, he thought, was inconsistent, as the chloroform was then given during the stage when it was most dangerous. They knew that most deaths from chloroform occurred during the early stages, when, during the struggling of the second stage, it might be a matter of only three or four deep breaths to pass over into the fourth, or that of death. If ether is given with the Clover's inhaler at the mark 2, and before this second stage, they had all the objectionable features of salivation, coughing and semi-asphyxia. As to the question of sprinkling ether on the open mask during chloroform anæsthesia as a temporary stimulant, he found that after anæsthetising a child with chloroform and then continuing with ether alone by the open method, it takes some eight or ten minutes before the slow pulse of the depressed chloroform circulation returns to the normal.

Dr. SAWKINS, in reply, said while he was gratified that the paper provoked so wide a discussion, still the nature of the criticisms showed that the objects he had in reading it had not been appreciated. He had no intention of raising the question as to the relative safety of ether and chloroform as general anæsthetics. That was adequately discussed elsewhere. What he wanted to do was to call attention to the fact that even after pain reflexes were abolished there might still remain—in abdominal surgery particularly—the important and dangerous reflexes due to the sympathetic system. There can be no denying the presence of these reflexes, or the dangerous conditions which may be caused by allowing them to remain uncontrolled. There could be no doubt in the mind of those accustomed to abdominal surgery that immediate shocks could be caused through the sympathetic reflex channels, and post-operative shock also. The paper then went on to describe how in his own practice he had coped with these reflexes—namely, by pushing the ether till the deep condition of narcosis he described was attained; and he claimed that it was possible to do this with absolute safety provided that proper airway be kept up. Dr. McKay, he thought, misunderstood him. He did not say that anæsthesia *caused* shock. What he did say was that *inadequate* anæsthesia conduced to shock. Nor did he advocate the routine use of alcohol. He said that where alcohol was needed, rather than give it as the A of the ACE mixture he should give it either by the mouth or rectum as a preliminary. Dr. Litchfield mentioned the danger of chloroform in the so-excited stage of chloroform, or, as Hewitt calls it, the stage of unconscious reflex activity. He quite agreed with him as to the danger of heart failure in this stage. Embling has shown this failure to be caused by the poisonous action of the drug on the heart muscle, the stimulation of the vagus (cardiac inhibitory) centre, and the diminution in the vascular tone of the arteriole; but he did not continue the chloroform into the dangerous stage when using the chloroform-ether sequence. In reply to Dr. Wade, he could assure him that he had usually very little trouble in changing from chloroform to ether, and was rarely bothered by coughing or excessive salivation.

Dr. JAMIESON, in reply, said he had always been taught to believe in chloroform rather than ether. During the time he was a medical student at Edinburgh—from 1884 to 1890—he had never seen ether administered. He did not approve of starting anæsthesia with the administration of chloroform and then continuing it with ether.

Victoria.

ANNUAL MEETING.

THE annual meeting of the Victorian Branch of the British Medical Association was held at the Vienna Café on Wednesday evening, December 17th.

Dr. GRESWELL, chairman of the Board of Public Health in the State of Victoria, was elected president for the forthcoming year.

Dr. WEIGALL (Elsternwick) was re-elected vice-president.

Dr. CUSCADEN (Port Melbourne) was re-elected hon. treasurer.

Dr VANCE (St. Kilda) was again elected hon. secretary.

Dr. BRYANT (Williamstown) was re-elected hon. literary editor.

The Council consisting of Drs. Macansh, Dyring, Willis, Henry, and Neild.

COUNCIL'S REPORT FOR 1902.

In presenting their annual report your Council wish to congratulate members on the continued prosperity of the Branch. A number of new members were elected during the year, while the resignations have been very few. Death, unfortunately, has removed several of the oldest of our members, amongst them being Drs. Snowball and Pincock, whose loss could be ill spared in the profession. During the year, as you are aware, your Council gave their support to several districts in which the medical men were fighting the clubs. We are happy to state that their efforts were crowned with success. Several cases of an ethical nature came before the Council during their term of office. These were, in all cases, satisfactorily settled. Some remarks made by the District Coroner at an inquest on a case of death from chloroform were taken exception to by the Council as being calculated to place medical men in an entirely false position. As the result of the action taken, the remarks are not likely to be again made. An attempt was made during the year to get the few members who resigned some years ago to rejoin the Branch. Unfortunately, however, it ended in failure. The Council have been strongly urged to take up the question of medical defence. After much thought and deliberation the Council have formulated a scheme. The opinion of members is now being taken regarding it. During the year Dr. Henry was elected a member of the Council. We are sure that that gentleman's intimate knowledge of the Branch and its workings will be a decided gain to the Council. We have great pleasure in announcing that Mr. S. G. Pirani has been elected honorary solicitor to the Branch. The members are to be congratulated on obtaining the services of this

Digitized by Google

well-known gentleman. Turning to the business portion of the Branch's work, several most interesting papers were read, amongst the number being Dr. Fox's on "The Cure of Cancer by Electrocution," and by Dr. Beckett on "The X-Rays as a Cure for Cancer." The interest taken by members in these papers speaks well for the future usefulness of the Branch. In retiring, your Council wish to express their great indebtedness to Dr. Neild for his kindness in allowing them the use of his house for their Council meetings. Your thanks are also due to the president, Dr. Macansh, and the hon. treasurer, Dr. Cuscaden, for the amount of time and labour they have devoted to the interests of the Branch. Your Council, in conclusion, in wishing members the compliments of the season, trust that the incoming year will be more prosperous than the departing one.

(Signed) { W. MACANSH, *President.*
W. B. VANCE, *Hon. Treasurer.*

BALANCE-SHEET for the year ending December, 1902.

Dr.	£	s.	d.
To Balance last year	85	15	4
,, Subscriptions..	315	7	0
,, Transfer from Savings Bank ..	107	2	5
	£508	4	9

Cr.	£	s.	d.
By England and Sydney	287	1	3
,, Bank deposit	150	0	0
,, Rent	8	0	0
,, Stillwell & Co.	15	13	6
,, Ocean Accident Co.	13	0	0
,, Bank charge	0	10	0
,, Exchange—Drafts and cheques ..	3	3	11
,, Secretary	1	11	4
,, Treasurer	1	19	2
,, Bank balance	27	5	7
	£508	4	9

Audited and found correct.

A. G. BLACK, Auditor Victorian Branch
British Medical Association.

December 16th, 1902.

G. W. CUSCADEN, Hon. Treasurer.

The treasurer's balance-sheet showed a most satisfactory financial position, and that the Society was numerically almost as large as in its most prosperous times.

After the transaction of the business the retiring president (Dr. Macansh) invited the members to a supper.

The following gentlemen were present:—Drs. Gresswell, Henry, Keogh, Dyring, Gandevia, Kelly, Hearne, Joske, Grant, Beckett, Black, Prägst, Vance, Harbinson, Bryant, Cuscaden, Neild, Weigall, Lulham.

Dr. MACANSH proposed the toast of "The King."

Dr. WEIGALL then proposed the health of the retiring president, whom he congratulated on a most successful year of office, characterised by tact, business ability in transacting the Society's affairs, and a general desire to promote the welfare of the British Medical Association.

Dr. MACANSH thanked Dr. Weigall and the members for the enthusiastic manner in which they had received the toast of his health, and insisted that all his endeavours to advance the Society had been so ably assisted by Dr. Vance (the secretary) and the other members of committee that his position had presented very few difficulties. He had been greatly interested at the congress held in Tasmania by the advocates of specialism, and as the results of his attention to the various debates he concluded that the poor general practitioner was destined soon to be a thing of the past. No longer must he express the bleeding placenta himself, but immediately must he send for the specialist whilst the humble general practitioner titillated the uterine muscle through the abdominal wall; in fact, according to some of the speakers at this congress, the general practitioner should be nothing more nor less than a clinical clerk. He thanked all the gentlemen for their presence, and could assure them that the Victorian Branch of the British Medical Association, after being almost annihilated, was gathering strength, and was almost as strong numerically as the Branch had ever been at its best. They offered special inducements for medical men to join them, viz., two journals and the membership of the greatest medical society in the world. The Council also proposed to add a defence association to work in conjunction with the Society, and their aim would be to ameliorate the present position of the general practitioner and the profession generally, to investigate and improve the present lodge system, and generally to protect all members of the profession from any injustice that they may be suffering from.

Dr. HENRY then proposed the health of the new president, Dr. Gresswell. Since the lamentable disjunction in the Victorian Branch of the British Medical Association Society our worthy and respected friend, Dr. Neild, had occupied the first presidential chair, and his tenure of the position would stand out prominently in years to come in the history of this Branch of the British Medical Association. Dr. Macansh ably followed Dr. Neild, and now Dr. Gresswell had consented to preside over our meetings during the ensuing year. The Branch was fortunate in obtaining the services of a gentleman who had established his name both in the old country as well as the new. His advent would help us as a body, and in accepting this position in the Society at the present time it would give a tone to it which all those intimately connected with the Society would like to see.

Dr. GRESSWELL returned thanks, and hoped he might deserve the flattering remarks that his friend, Dr. Henry, had made. He desired to serve the State and the profession. He felt that as a public officer no profession ought to be more dignified than the medical, and that in accepting the office of president for the second time since his advent in Victoria he would do his best to promote the welfare and interests of the Victorian Branch of this great Association, and the medical profession generally. No society, either in the past or the present day, had such great influence in promoting the public welfare, and no other society could compare with it in its influence with the legislatures of the world. He would be quite satisfied if he could follow on the lines laid down by the retiring president, and maintain the position of the Society and its influence with the State. He again cordially thanked the members for the honour he had received at their hands.

Dr. MACANSH proposed the health of Dr. Neild, whom he called the Nestor of the profession. The Council had held all its meetings at Dr. Neild's house, and his hospitality, able advice and experience could never be forgotten. Dr. Neild had been one of the founders of this Society, and he could not help remarking how it probably emanated from one of Dr. Henry's suppers, the latter gentleman being noted for the excellence of his table, conjoined with literary good fellowship. Dr. Neild had been an active member ever since the Society's beginning, and he hoped that he might retain his health for many years to come.

This toast was received with hearty applause.

Digitized by Google

Dr. NEILD, in reply, thanked the members for their kindly welcome, and said it was a great pleasure to him to think that, though he was now in the sere and yellow stage, he was not quite forgotten. When he looked back and thought of his early friends and associations, nearly all departed, it made him feel that his time with them would not, in the ordinary course of events, be much longer. He had lived nearly 50 years in the city. He had taken part in every movement connected with the profession, and he felt glad and delighted to know that he was still not quite forgotten. It gave him pleasure to see his friend, Dr. Gresswell, occupying the presidential position this year, and he concluded by saying that as long as he lived he would always be happy to meet the members and assist the profession generally to the best of his ability.

Dr. DYRING proposed the health of the vice-president, Dr. Weigall, who replied with a few suitable remarks.

Dr. BRYANT proposed the health of the hon. treasurer, Dr. Cuscaden.

Dr. JOSKE proposed the health of "Kindred Societies" and "The Visitors," which was responded to by Drs. Laurie and Joyce.

Dr. MACANSH proposed the health of the hon. secretary in a most eulogistic speech, referring to him as capable, courteous and painstaking; and this opinion was endorsed most heartily by every member in the room.

Songs were sung by Drs. Dyring and Bryant during the intervals between the toasts, and Dr. Henry gave his celebrated whistling performance, accompanying himself upon the piano. Dr. Lulham also gave some choice selections on the zonophone, which were greatly appreciated; and Dr. Joyce recited "The Man from Ironbark" splendidly.

After this most enjoyable evening members departed for their homes with more kindly feeling towards one another and the world in general.

West Australia.

THE annual meeting was held on November 22nd, 1902, at 7.30 p.m., Dr. H. T. Kelsall (vice-president) in the chair, and 15 members were present.

The minutes for the October meeting were read and confirmed.

The annual report was read, which showed that seven new members had been elected to the Branch, one member (Dr. S. V. Duncan) had died, and one member (Dr. J. E. Ramsay) had resigned during the year.

Many interesting clinical cases and pathological specimens had been shown at the monthly meetings during the year, and several interesting and instructive papers read, which provided some animated discussions.

Dr. H. T. Kelsall, who attended Congress in Hobart as delegate of the West Australian Branch, extended an invitation to the Intercolonial Medical Congress to meet in Perth, W.A., in 1905. Congress extended a vote of thanks to the W.A. Branch, at the same time intimating their inability to meet in Perth in 1905.

The following office-bearers were elected for the ensuing year:—President, Dr. H. T. Kelsall; vice-president, Dr. H. E. Astles; hon. secretary, Dr. A. E. Randell; hon. treasurer, Dr. G. H. S. Blackburne; three ordinary members of Council, Dr. V. Black, Dr. W. T. Dermer, and C. G. Thorp; Drs. E. Black and C. G. Thorp were appointed hon. auditors; local editor and special correspondent to *Australasian Medical Gazette*, Dr. H. Horrocks.

At the conclusion of the above meeting the annual dinner was held; there was a very good attendance; many hearty toasts were drunk, which were interspersed with harmony, and altogether a most enjoyable evening was spent.

REPORTS OF SOCIETIES.

Medical Society of Victoria.

AT the annual meeting of the Medical Society of Victoria held at the hall of the society, Albert-street, this month, the retiring president (Dr. J. P. Ryan) in the chair, the following office-bearers were elected for the current year:—President, Mr. R. Hamilton Russell; vice-presidents, Dr. G. T. Howard and Dr. Butler Walsh; hon. treasurer, Dr. C. H. Mollison; hon. librarians, Dr. A. W. F. Noyes and Dr. H. D. Stephens; hon. auditors, Dr. C. Bage and Dr. G. Horne; hon. secretary, Dr. L. Balfour; committee, Drs. P. B. Bennie, W. Boyd, J. Buchanan, E. L. Gault, A. L. Kenny, C. J. Martin, W. Moore, F. W. W. Morton, R. R. Stawell, A. J. Wood. The report adopted by the meeting showed that the society was in a flourishing state, the membership having reached the number of 279. The retiring president (Dr. J. P. Ryan) read an address dealing with the questions of cancer and tuberculosis. Sir T. N. Fitzgerald moved a vote of thanks to the retiring president for his valuable address and for his services to the society during his year of office. The vote was seconded by Dr. Charles Smith, and was carried with acclamation.

Medical Defence Association of South Australia.

THE third annual meeting of the South Australian Medical Defence Association was held at the University on Thursday, December 4th, at 8.30 p.m.

Present—Dr. Swift (president), in the chair, Drs. Benham, Morris, Poulton, Lendon, Hayward, Harrold, Todd, Marten, A. A. Hamilton and Cavenagh Mainwaring.

Dr. POULTON proposed and Dr. BENHAM seconded—"That the annual report be taken as read." Carried.

ANNUAL REPORT.

The Council of the South Australian Medical Defence Association have much pleasure in presenting to the members their third annual report. As will be seen from the treasurer's statement, the financial position of the Association is a very satisfactory one, nothing except ordinary business expenses being debited during the year. The number of subscriptions has, however, fallen from 66 to 53. The deficiency is partly due to deaths amongst the members, partly to members leaving the State, and partly to arrears of subscriptions. The treasurer would be greatly obliged if those gentlemen who desire to remain members would forward the arrears of their subscriptions. Six meetings of the Council have been held during the year, at which many matters of interest to the profession have been discussed. The question of the remuneration of surgeons to the racing clubs for their services has occupied a great deal of the time of the Council during the year. Correspondence has proved barren in results, and a sub-committee of the Council has been appointed to personally interview the officials of the clubs, whose report will be presented at the annual meeting. A scale of fees has been drawn up for the guidance of the members, copies of which can be had at once on applying to the secretary. The Medical Register, in Messrs. Sands & McDougall's Directory, has been revised and brought as much up to date as possible by the Council, and in answer to a communication from that firm, the Council has stated that, in their opinion, it is not advisable that the hours of consultation of medical men should be inserted in that directory at a small annual charge.

Digitized by Google

The attempt to get the name of Dr. Wallace, of Sydney, removed from the South Australian Register has failed, owing to the difficulty of identifying the man, and a communication from the New South Wales Medical Union states that in their opinion no advantage would be gained from the step. The following communications have also been considered:—(*a*) With regard to the right of Dr. Jurs, of Port Adelaide, to claim his title; (*b*) with regard to the action of the coroner in certain inquest cases; (*c*) with regard to the slovenly way in which the Medical Register of South Australia was issued; (*d*) with regard to amending the Act dealing with the sale of poisonous drugs; (*e*) With regard to the appointment of unqualified men practising medicine to the office of J.P.; (*f*) concerning the fees of the Australian Temperance and General Mutual Life Association.

BALANCE-SHEET.

Cr.	£	s.	d.
To Balance in Savings Bank, Nov. 30, 1901	141	11	3
,, Interest	4	12	6
,, Fifty-three (53) subscriptions	55	13	0
	£201	16	9

Dr.	£	s.	d.
By Printing	2	9	6
,, Exchange	0	0	6
,, Stamps and minor expenses (hon. sec. and treasurer)	1	14	0
,, Balance in Savings Bank	197	12	9
	£201	16	9

W. T. HAYWARD,
Hon. Treasurer.

The PRESIDENT moved the adoption of the report, and regretted that the committee appointed to interview the racing authorities had been unable to prepare a report for the meeting, and that therefore it would be advisable to discuss the matter at a later meeting. He also pointed out that with regard to item C on the annual report no reflection was intended on the Medical Board, whose labours the Council fully recognised, as well as the difficulties they had to contend with in securing any amendment in the Medical Register.

Dr. BENHAM seconded the motion.

Dr. TODD explained the difficulties that had been placed in the way of the Medical Board, but stated that permission had been obtained to omit from the Register the names of all those whose deaths could be proved. He remarked on the difficulties that arose from the neglect to notify change of address, and asked the members to give the Board as much help in this direction as possible.

The motion was then put and carried.

The TREASURER moved the adoption of the balance-sheet. Dr. MARTEN seconded. Carried.

There being no opposition for the position of office-bearers the men nominated were declared elected.

Dr. HAYWARD moved—"That in future three weeks' notice of the annual meeting be given to members, instead of one; that two weeks instead of three weeks be the time for nominations to be in before the annual meeting; and that in future two members of the Council retire annually and be not eligible for re-election."

Dr. HARROLD seconded. Carried.

Dr. HAYWARD gave notice of motion to alter the subscription, to be moved at the next general meeting.

CORRESPONDENCE.

London.

(FROM OUR OWN CORRESPONDENT.)

Venereal Diseases in Prussia—Statistics of the German Hospital in South Africa—Minor Ailments—Infantile Alcoholism — The Dissemination of Enteric Fever—The Pneumococcus in Pneumonia.

AN enquiry into the prevalence and distribution of venereal diseases throughout the kingdom of Prussia has recently been undertaken under Government supervision, and according to the completed returns collated by Professor Guttstadt it appears that on the day on which the enumeration took place no fewer than 40,902 adults were under treatment as private patients. Hospital patients were not included in the enquiry. It is very clearly brought out by the statistics that these affections are enormously more prevalent amongst dwellers in crowded centres than in sparsely-populated country districts. Thus in Berlin the rate per 10,000 adult males was 141·94, whereas in 47 towns with less than 30,000 inhabitants it amounted only to 45·06. It is believed that these disorders are becoming much more prevalent, and in order to prevent their further increase certain prophylactic measures have been devised by the authorities, the more important being:—(*a*) An improved system for teaching the subject of venereal disease, with facilities for free instruction by salaried professors; (*b*) enlightenment of the public regarding the gravity of the question by means of pamphlets and leaflets; (*c*) special provision for the guidance of medical officers attached to the sanitary authorities; (*d*) the instruction of midwives regarding the clinical characteristics and modes of dissemination of the disease; (*e*) the surveillance and regulation of prostitution, and the suppression as far as possible of clandestine prostitutes.

A report has just been issued by Dr. Matthioliws on the work of the German Red Cross Hospital during the late war. The total number of patients treated was 1358, and of these 707 were in-patients; 33 cases of malaria, 70 of enteric fever, and 108 of dysentery were brought to the hospital; and 487 wounded men were attended to, but only a few major operations were performed. As far as Dr. Matthioliws was able to judge, the injuries produced by the Lee-Metford and Mauser bullets were about equally severe. No evidence came before him that either poisoned or explosive bullets had been used on either side, and he was of opinion that there was no truth in the statements of lyddite fumes producing injurious effects.

The recent meeting of the British Medical Association at Manchester was provocative of an article in one of the London daily papers criticising the value and quality of the work done at such meetings, and finding fault with the present tendency on the part of the profession to strive after enlightenment on the rare and more obscure forms of disease to the exclusion of all the minor ailments of everyday occurrence. It was pointed out that this fashion was not without an element of danger to the public weal, and that, from the points of view both of their prevalence and of the difficulties concerned with the treatment of many of them, the simple ailments deserve the energy of medical science quite as much as those that are dangerous and complex. Dyspepsia was chosen as an illustrative instance of a disease too trivial to be seriously considered by nine doctors out of ten, and yet provocative of widespread

Digitized by Google

distress and, in some cases, of perpetual misery. The writer of this article hit upon the disorder which, more than any other, verifies the soundness of his argument, because there can be little doubt that its very prevalence, added to the fact that it is practically unattended with danger to life and is sometimes uncompromisingly rebellious to treatment, causes it to lose interest for the large majority of practitioners; and yet how many lives would be made brighter and how much of the world's work would be rendered easier if the horrors of indigestion could be escaped! In these days of bustle and hurry it is hopeless to expect complete immunity from this and other functional disorders, and the difficulty in the management of most cases is the impossibility of persuading the sufferer that the first necessity for the relief of his discomfort is obedience to the fundamental laws of health. Such obedience often demands change of habits which from long indulgence have become second nature, and it is no easy matter to convince the ordinary dyspeptic that no kind of drug and no system of treatment can be of the least service to him until he has arranged his method of life with a due regard to his idiosyncrasies and respectful observance of the limitations of his endurance. Assuming that ætiological conditions are thus kept in view and corrected, and that for a certain length of time the patient is prepared to submit to such dietetic simplicity as the circumstances of his disturbed digestion render necessary, there can be no question of the good that may be effected by suitable drugs, nor can it be doubted that there is ample scope for the exercise of therapeutic skill. No two cases can be treated on exactly the same plan; a certain modification of diet, a rearrangement of the hours of sleep and the amount of exercise, an insistence upon more leisure and the cultivation of a hobby outside the sphere of daily work—these, and many other points which may be enumerated, demand attention at the very outset of treatment, and must be regulated to suit each patient individually. But, when all this is conceded, it still remains true that there is much confusion in the minds of many physicians as to the lines which therapeutic management should follow, and no small amount of bewilderment at the vast array of drugs which are credited with curative properties. The confusion would become much diminished were the plan adopted of classifying cases. This can readily be done if attention is given to each syndrome of symptoms as it, for the most part, presents itself. No classification can be absolute, but most cases will be found to conform to one or other of the following three types: *Atonic, acid or irritative* and *nervous*. If a methodical plan such as this is followed, treatment is much simplified, and becomes narrowed down to acids and tonics for the first variety of the disease, alkalies and sedatives for the second variety, and nerve stimulants or sedatives, according to circumstances, with carminatives, for the third. Recent experience further goes to prove that each of these three schemes of treatment may be made doubly efficacious if conducted on antiseptic lines. There are many varieties of antiseptic drugs suitable for stomach administration—sulphocarbolate of soda, salicylate of bismuth, charcoal, carbolic acid, creosote, etc. Of these carbolic acid is the most generally useful; it may be added to either an alkaline or acid mixture, or may be given with other tonics in pill or capsule form. About two grains is a suitable dose, and this may be given three times a day over a long period of time without risk of carboluria or other unpleasant symptoms. Fermentative activity plays such an important part in dyspeptic processes of all kinds that it is easy to understand the good which results from antiseptic medication carefully adapted and persistently followed. The results claimed by those who have most employed the method warrant its trial by others, and justify the hope that it may prove, when more widely known, a boon to those who suffer from the minor but widespread ailments which are grouped together under the generic title of dyspepsia.

A striking paper on "Alcoholism in Childhood" is contributed by Roubinovitch to a recent issue of the *Gazette des Hopitaux*. He points out that the condition may be inherited or acquired, while not infrequently both forms are combined in the same child. The hereditary form develops during fœtal life and depends upon confirmed alcoholism in the parents, producing a direct toxic action on the reproductive elements. The subjects of hereditary alcoholism are, he says, born with a feeble constitution and with tissues which lack the normal resistive power, so that they succumb readily to such disorders as gastro-enteritis, bronchitis, or meningitis. Those who survive the first few years of life generally show a marked predisposition to tuberculosis and such nervous disorders as neurasthenia, epilepsy, and chorea. From the records of 163 families in which either father or mother was addicted to alcohol, he found that no fewer than 244 children suffered from epilepsy. Many others were possessed of a defective memory, a weak intellect, and a general deficiency of the moral sense, and as an extreme case he records one in which a drunken father had seven idiotic children. At a later period of life various forms of mental disease are prone to occur, and dipsomania is an extremely frequent development. His investigations proved that the acquired form of the disease was mostly brought about by lactation, it being a common fallacy in many countries that alcoholic beverages consumed by the nurse improve the quality of the milk she yields, and so imparts strength and vigour to the infant. Alcoholism may, however, also be acquired by direct administration of stimulants, and it is a frequent practice to soothe infantile fretfulness and induce sleep by the use of brandy or gin. In some parts of Austria wine is regarded as indispensable during the period of dentition, and in Scotland the nursing mother looks upon stout as a necessity of her daily dietary. Among certain classes of all populations boys from a very early age are encouraged to drink beer or wine, with the result that bibulous tastes become an established habit. Acquired alcoholism produces more marked effects in children than in adults, especially on the nervous system, and many of the epileptiform convulsions of young people are possibly the result of this recourse to stimulants. Chronic alcoholism, says Roubinovitch, is manifested in children, as in adults, by tremors, restlessness, insomnia and gastro-enteritis, which eventually lead to marasmus. In children of neuropathic heredity these symptoms appear early and are strongly pronounced. He cites the case of a girl born of alcoholic parents who had consumed half a litre of wine daily since the age of three years. At 13 she had ascites and other symptoms of cirrhosis of the liver. Her appearance was that of a child of eight or nine, and her development in every respect was below normal. The paper which is thus summarised is one of very considerable importance as drawing attention to an evil arising frequently from dense ignorance, but none the less tending in no small degree to degeneration of the whole of mankind. It may not be so widespread as the writer would seem to indicate, but that the evil exists no one with any experience of the habits of the lower classes of society can deny; and only by a spread of knowledge among the mothers of that section of the population among whom it prevails of the dangers attendant upon the taking of alcohol by themselves or the giving of it to their children can it be hoped to lessen or arrest the pernicious practice.

Though it is now universally recognised that Eberth's bacillus is the specific cause of enteric fever, much

Digitized by Google

remains unknown concerning its life history. The prevalence of the disease in the recent South African war has added renewed interest to the important questions which attach to the behaviour of this organism outside, as well as inside, the human body. It is common knowledge that the bacillus can be disseminated by water and by milk, and that persons through one or other of these media may be infected. But it is obvious that there must be other roads through which the disease may spread, and Majors Firth and Horrocks of the Army Medical School at Netley, have done good service towards the elucidation of this problem by the experiments recently carried on by them, some results of which they communicated to the section of pathology at the Manchester meeting of the British Medical Association. They satisfied themselves that the bacillus typhosus is capable of assuming a saprophytic existence in ordinary as well as in sewage-polluted soil, and can survive therein for as long as 74 days—that from khaki cloth inoculated with an emulsion of the enteric bacillus and allowed to dry, the micro-organism is recoverable up to at least the eighteenth day; and that ordinary house flies can convey enteric infective matter from specific excreta or other polluted material on which they may rest or feed. These are three highly important results, and if they are confirmed by further observation must do much to modify the measures at present in vogue for the prevention of the disease. Assuming them to be correct, the dry earth system of sewage disposal will stand hopelessly condemned; greater care will be demanded in the disinfection of not evacuations only, but of clothing and of room-furnishings as well; and a war of extermination will require to be waged against flies and other domestic insects. Such measures will doubtless involve large expenditure and considerable trouble, but this should be no consideration if their adoption means greater safety from risk of the spread of enteric fever in any household or community where a case occurs, or of its becoming epidemic in armies on the field, in ships, in gaols, or in large institutions of any kind where humanity is closely crowded together.

The frequency with which the pneumococcus is present in the blood in cases of pneumonia is a question of considerable importance when it is remembered that the micro-organism is not always localised in the lungs, but is also frequently responsible for lesions in other organs. In a recent issue of the "Johns Hopkins Hospital Bulletin" an important paper on the subject is contributed by Dr. Rufus Cole. He made cultures from the blood of 30 unselected cases of pneumonia, from each of which ten cubic centimetres of blood were withdrawn from one of the superficial veins of the arm. Sterile milk was selected as the culture-medium because of the readiness with which the growth of the pneumococcus may be recognised by early acidification and coagulation. Pneumococci grew from the blood in nine cases, all of which proved fatal. In four fatal cases the pneumococcus was not found. In one case the cultures were negative six days before death, but positive three days later. Dr. Cole's researches go to prove that in pneumonia the finding of the pneumococcus in the blood is of serious prognostic significance, and that this method of culture-investigation may prove of value both diagnostically and prognostically in obscure cases of central pneumonia, or of general pneumococcic infection where there are no discoverable pulmonary lesions.

TONIC CONTRACTION OF THE UTERUS.

(To the Editor of the Australasian Medical Gazette.)

SIR,—I should like to be allowed to comment on the reports of two cases of midwifery which appeared in the *Gazette* of November 20th, viz., the "Case of Eclampsia," delivered by craniotomy, and that of "Tonic Contraction of the Uterus" and the use of amyl nitrite.

Surely in the first case delivery by high forceps would have been simpler and of less danger to the mother than the longer manipulations necessitated by craniotomy. I take it that "the cervix dilated ¼ inch" is a misprint.

In the second case it seems to me that the sudden dilatation of the uterus was due to the general relaxation from chloroform poisoning rather than to the 10 minims of amyl nitrite inhaled by a patient in such a state of collapse as is described, and that decapitation or lessening the bulk of the child would have been more in accordance with the accepted rules of modern midwifery than the danger of prolonged attempts at turning in a uterus in a state of tonic contraction that the writer describes so vividly.—I am, etc.,

G.R.

Sydney, December, 1902.

PREVENTIVE INOCULATION AGAINST PLAGUE IN AUSTRALIA.

(To the Editor of the Australasian Medical Gazette.)

SIR,—Certain of the general remarks included by Dr. Hornabrook in his paper on "The Advantages of Inoculation with Professor Haffkine's Plague Prophylactic," which appeared in the *Australasian Medical Gazette* of December, 1902, are likely to leave an incomplete impression in the state of knowledge in his native country; and as others of your readers abroad besides him have probably not made themselves acquainted with the official report on the outbreak at Sydney, dated November 13th, 1900, I beg you will be good enough to find space for the following extracts from it*:—

"Haffkine's prophylactic was alone used. As mentioned below, a small stock had been procured during the latter half of 1899; it was used for protection of those immediately associated with the earlier cases, including members of the staff . . . ."

"The total number of those known to have been thus protected was 10,700 . . . ." (p. 11).

"Among the inoculated public 13 were attacked; particulars are given in the table below . . . ." (p. 12).

"It will be noticed that attacks which occurred at, or before the lapse of about ten days from, inoculation were not aggravated by it." (p. 13).—I am, etc.,

January 7th, 1903. J. ASHBURTON THOMPSON.

* Report on an outbreak of plague at Sydney, 1900. William Applegate Gullick, Government Printer.

Resection of the Cervical Sympathetic.—Professor Jonnesco, of Bucharest, whose work in the surgery of the cervical sympathetic is well known, has contributed a special article to the last volume of *International Clinics*. During the last five years he has performed over one hundred and thirty bilateral cervical sympathectomies. His smallest exsection involved the removal of the superior ganglion. In two cases he removed even the first thoracic ganglion, a feat which in the living subject had been declared to be anatomically impossible. In none of these cases has there been the slightest trace of trophic or circulatory disturbance. He states that up to August, 1897, of the twenty-nine epileptics, twelve are cured and four greatly improved, and none of the patients is worse because of the operation. Of fifteen patients suffering from exophthalmic goitre, all have been completely cured or markedly improved.—*Phil. Med. Journal.*

Digitized by Google

REVIEW OF CURRENT MEDICAL LITERATURE.

OBSTETRICS.

The Medical Indications for the Induction of Labour.

Pinard (*Annales de Gynéc. et d'Obstet.*, September, 1902). This communication contains an interesting survey of the whole subject. The question of the induction of abortion is not considered, neither is the subject of contracted pelvis; the discussion being limited to the diseases which justify us in interfering with progunancy during its later months, and where it is our endeavour to save both mother and child. The author formulates the general proposition that "one ought to stop pregnancy when a disease produced by, or aggravated by, pregnancy menaces the life of the woman herself." Pinard classified the diseases justifying the induction of labour thus:—

(*a*) Diseases depending directly on the pregnancy:—(1) Uterine hæmorrhages; (2) hydramnios; (3) molar pregnancy; (4) toxæmias of pregnancy, uncontrollable vomiting; (5) albuminuria; (6) eclampsia, etc.

1. *Uterine Hæmorrhages.*—May be serious either on account of their amount or their persistence. A single loss, even large, is no direct indication; blanching and syncopal tendencies, even alarming, only urgently necessitate operative interference when, together with this, the pulse rate is permanently above 100 per minute.

2. *Hydramnios.*—The mere amount of liquor amnii, even though very great of itself, is not an indication. The period of pregnancy during which the symptoms show themselves, and the rapidity with which the fluid is produced, are, however, important. In general terms, the younger the pregnancy and the more rapidly the fluid is increased, the greater the danger. Two main conditions of great importance are the increase of general œdema and rapid distension of the uterus. The first is accompanied with dyspnœa, orthopnœa, and general symptoms of asphyxia; while the latter is signalised by acute abdominal pain, dry skin, wasting, and great diminution in the amount of urine.

3. *Molar Pregnancy.*—Here there is not only danger of hæmorrhage, but also of special intoxication, the latter being indicated by more or less complete loss of uterine contractility and a cachectic tint of the skin quite different from the pallor of hæmorrhage. The loss of contractile power is important, and Pinard speaks of a fatal case of hæmorrhage after emptying a uterus where this condition was present. Another point indicating interference is the association of vesicular mole with deciduoma malignum.

4. *Toxæmias of Pregnancy and Uncontrollable (Morbid) Vomiting.*—Pinard maintains that uncontrollable vomiting must not be considered as a disease by itself, but as a manifestation of a toxæmia. He insists that by appropriate treatment early in such cases one can often improve, or even cure, them without interfering with the pregnancy itself. Great importance is to be attached to the rapidity of the pulse; in fact, as a general rule, if it exceed 100 per minute, induction is indicated. Cases of this sort must not be left till late, for even if induction be done death may supervene from poisoning of the nervous system.

5. *Albuminuria.*—Vigorous medical treatment should render the necessity for induction a relatively rare proceeding, but if this fail, and the amount of urine rapidly diminishes, the case is serious. A large amount of albumen, restlessness, insomnia, headache, failure of vision, and modifications of respiration, with other indications of danger, render induction justifiable.

6. *Eclampsia.*—Putting aside exceptional cases, he thinks that the necessity of interfering with the pregnancy is not at present adequately defined.

(*b*) Chronic diseases aggravated by pregnancy:

1. *Diseases of the Circulatory System.* — Irregular rhythm of the heart, dyspnœa, and symptoms of asphyxia would indicate the necessity for induction. Heart cases and pregnancy are always more or less serious; further, in such cases induction in the first half of pregnancy yields better results than in the second half.

2. *Diseases of the Urinary System.*—Pregnancy supervening upon a nephritis may be a serious matter, but there is no special symptom which would indicate induction, though the presence of a large amount of albumen, with steady diminution of the urine passed, is serious. Psychical and anæmic symptoms are to be watched for. He lays stress on the quantity of urine passed in 24 hours. As long as the amount equals 800 to 1000 grammes he believes that intervention is not indicated, or only in exceptional cases.

Pyelonephritis may be a grave complication towards the end of pregnancy, and if attended with high fever and diminished secretion of urine induction is justifiable.

3. *Diseases of the Respiratory System.*—Tuberculosis alone is worthy of consideration, but Pinard strongly negatives any operative procedure. All that can be done is to treat the tubercular symptoms as they arise.

Massage and Exercise in the Puerperium.

C. S. Bacon (*Jour. Am. Med. Assoc.*, Aug., 1902) advocates the more general use of massage and exercise during the puerperium. Massage of the whole body by friction is an excellent stimulant to the general circulation and a valuable sedative. Massage of the abdomen aids uterine contractions and stimulates intestinal peristalsis. Exercise should begin on the third day after labour, at first the extremities, and by the ninth day he has the patient flex the thighs upon the abdomen. He next has the patient flex the whole body upon the thighs. This movement should not be attempted before the twelfth day. He allows patients to walk before he allows them to sit. They walk for two or three minutes, three or four times a day. As a rule a patient begins to walk on the tenth to the twelfth day.

Urobilinuria as a Sign of Fœtal Death.

Numerous observations by C. Merletti (*Cent. f. Gyn.*, No. 16) have shown that in at least the last quarter of pregnancy it is the rule to find an increased urobilinuria in apparently healthy women. The quantity of the pigment is two or three times as great as that excreted by non-pregnant healthy women. In five cases of intrauterine, death of the fœtus occurring between the fifth and seventh months, he found a marked urobilinuria, which returned to the normal amount within five to ten days after delivery. In consequence of these observations Merletti calls attention to the existence of a physiological urobilinuria of pregnancy and to its marked increase in cases of fœtal death in utero. He regards the latter as a reliable sign of death of the fœtus.

The Treatment of Pregnant Women with Cancer.

Pozzi (*Der Frauenarzt*, October 24th, 1902), speaking at the Paris Society for Gynæcology, etc., distinguished cases in which the pregnancy has existed less than four months from those in which it has gone on longer. In the former class the diagnosis of the pregnancy is a matter of much difficulty, as the extent to which the cancer affects the uterus, the co-existence of a fibroma, or the accumulation of fluids within its cavity may cause, as pregnancy would, a very considerable

Digitized by Google

enlargement of the womb. In this class Pozzi recommends immediate surgical intervention on the grounds that:—(1) The life of the fœtus is, under the circumstances, not a factor of much importance; (2) abortion very frequently occurs spontaneously; (3) and when spontaneous abortion happens, not under medical supervision, hæmorrhage and septic complications are often induced by the malignant disease; (4) the development of the cancer is vastly accelerated by the existence of pregnancy. In the second class, in which pregnancy has proceeded beyond four months, Pozzi admits that the mode of treatment should always be ordered according to the way the patient supports her pregnancy: if badly he intervenes promptly, if otherwise he waits until the eighth month for the sake of a living child, but in his opinion it is absolutely dangerous to wait till labour has commenced at term. In the first class he practises abdominal hysterectomy, admitting, however, that this is merely from personal predilection, for, of course, one can remove the uterus by the vagina, as many operators prefer to do. In the second class, abdominal pan-hysterectomy, it is self-evident, is the only possible procedure.

GYNÆCOLOGY.

Utero-ovarian Thrombosis after Abortion, extending to the Vena Cava and Heart.

Hoche (*Ann. de Gyn. et d'Obst.*, May, 1902) reports:—A woman of 31, who had been pregnant nine times previously, and had on eight occasions gone to term, was brought to the hospital a week after an abortion which had interrupted her tenth pregnancy in the fourth month; the fœtus had been discharged, but not the secundines. She was in a very grave condition; temperature 40·5° C., pulse 130, with rigors and pallor, and the artificial removal of the placenta brought little improvement. Three days later a severe rigor, and the following day greenish pus was found at the external os. Under antiseptic injections she improved to some extent, but on the sixth day after her admission she had another severe rigor and complained of acute lumbar pain; her temperature rose to 39° C. and the network of veins on the abdomen became extremely prominent, especially on the right side. In spite of curettage under chloroform, the fever and rigors persisted, and six days later a systolic murmur was, for the first time, detected at the apex of the heart, and signs of congestion and œdema at the base of each lung; diarrhœa soon came on, her condition became worse, and she lapsed into permanent somnolence. On the eighteenth day the urine suddenly diminished to 600 grms., and presented clouds of albumen; œdema came on gradually, first in the legs without any phlebitic cords, then in the abdomen; she died about a month after admission. At the autopsy a thrombosis was found which, starting from the right utero-ovarian veins, had extended along the inferior vena cava through the right auricle and ventricle into the pulmonary artery; the coagulation had, moreover, gone backwards into both iliac veins, especially the right, and had caused the thrombosis of the right renal vein, as well as the partial obstruction of some of the subhepatic vessels and small hæmorrhagic foci in the liver. There were infarctions of the lungs and kidneys, due to emboli carried from the large clot. Bacterial examinations of the blood made during life were negative, and all that could be determined after death was the isolation of a very few cocci, indefinite but apparently gonococci. Hoche supposes that with the extension of the thrombus, a preliminary uterine stage was intermittent, that when it reached the vena cava it caused the lumbar pains. Death was due jointly to the anæmic symptoms consequent upon the renal mischief and to the pulmonary infarctions.

The Surgical Treatment of Cancer of the Uterus.

A. W. Freund (Berlin), at the Fourth International Congress of Gynæcology, at Rome, October, 1902, drew the following conclusions: — 1. Diagnosis of cancer of the uterus gives direct indication for the *immediate* total extirpation of that organ. (2) The operation performed at the beginning of the disease, and as completely as possible, promises good results in regard to permanent cure. (3) The abdominal operation, performed according to the principles of modern surgery, fulfils the indication better than a vaginal one. (4) The vaginal operation should be reserved as a useful palliative proceeding in cases too far advanced for radical intervention. Pozzi (Paris) concluded, on the basis of his own numerous operations, that surgical treatment rarely gives a permanent cure, and hardly ever prolongs life more than two years. In exceptional circumstances and cases the patient may survive for four or six years, or even longer. 2. Hysterectomy is not justifiable in cases in which the disease has extended so far beyond the limits of the organ as to lessen its mobility and cause induction of the neighbouring tissues. A palliative treatment by curettage and the actual cautery may be most remarkably beneficial, and is absolutely innocuous. 3. The influence of the ganglia in the final phenomena and in the post operative metastases has been exaggerated. Compression of the ureters (the principal cause of grave accidents) is rarely due to adenopathia, but rather to the progressive extension of the disease to the surrounding cellular tissue. Recurrence takes place not so much by the development of neoplastic adenitis at a distance as by the infiltration of the cicatrix which, in its own place, becomes indurated, and then ulcerates. The extirpation of the ganglia can never be complete, and seems to have but little influence upon the development of the accidents which prove fatal, nor should the abdominal way be absolutely indicated by the necessity of extirpating the glands. 4. The enormous ruin produced by the extirpation of cellular tissue, by the curettage of the pelvis, and by the extirpation of the glands gives to the operation a gravity out of comparison with the possible advantages to be obtained. In commencing carcinoma excellent results can be got by a more simple operation (extirpation of the uterus), and in advanced cases of a disease which must necessarily be fatal in a short time, palliative treatment is to be preferred to measures which cannot cure and must be hurtful. The better operation is that which with least immediate mortality procures marked alleviation for the patient. 5. Vaginal hysterectomy, which involves less danger of infection, remains the treatment for those cases, unfortunately very rare, in which the carcinomatous uterus has not lost its mobility and the neighbouring parts have not become infiltrated, always excepting those cases in which the abdominal way is indicated, *e.g.*, narrowness or atrophy of the canal, extreme friability or enlargement of the neck, extreme falling away of the anterior wall of the uterus with extension into the vaginal vault; also when the corpus uteri is so much augmented in volume that by the vagina it would have to be extracted piecemeal (voluminous cancer of the corpus, carcinoma complicated by fibroma, pyometra or pyosalpinx). Finally, abdominal hysterectomy is indicated whenever the mobility of the uterus is diminished and there is induration of the neighbouring tissues. Wertheim (Vienna) maintained that mere extirpation of the uterus does not, save in a very few cases, suffice for the radical cure of cancer of that organ. On the contrary, more efficacious measures are indispensable, and may be found, in the first place, in removing the connective tissue surrounding the diseased uterus as extensively as possible, and, secondly, in the exercise of the local

Digitized by Google

lymphatic glands. He also emphasised the necessity for operating without delay. Many others took part in the discussion, but the opinions were not hopeful as to the results of operation.

Double Tubal Pregnancy: Simultaneous Rupture.

Frederick (*Amer. Jour. Obst.*, November, 1901), in a multipara of 38, who was attacked by symptoms of ruptured extrauterine fœtation, found both sides of the pelvis full of blood clots. Both tubes were ruptured, and the blood had come from both sides alike. He thinks the case unique.

Genital Tuberculosis.

Veit (Leyden) at the Fourth International Congress of Obstetrics and Gynæcology at Rome, presented the following conclusions:—(1). Genital tuberculosis is more common than was believed. (2). It may, beyond doubt, be primary; the secondary form is commoner. (3). Its genesis is generally from above, very rarely from below, nevertheless it may occur from infection through the blood, and also, in consequence of accidental lesions, through the lymphatics. (4). Its diagnosis may rest upon the discovery of the tubercle bacillus, or may possibly be made on the presence of absolute tubercle. (5). It may undergo spontaneous cure. (6). When primary or isolated, radical operation, at least for the present, is the best method of cure. (7). In secondary and not isolated forms, general treatment is of the first importance, especially measures to reinforce the system; but it cannot be denied that radical operation may give, even in these cases, excellent permanent results, and may therefore be occasionally indicated. (8) *Tubercular peritonitis* is *always* secondary; it may be of the ascitic or adhesive kind. (9) The lesion of the genitals may be primary or secondary, or may be entirely confined to the genital organs. (10) Peritonitis, with extensive nodular formations, when not dependent on ovarian tumours or cancer, may be accepted as of tubercular origin. (11) Peritoneal tuberculosis may, though rarely, undergo spontaneous cure. (12) Tubercular peritonitis is cured by laparotomy; the exceptions to this will generally be found due to advanced tuberculosis of other organs. (13) No explanation of such cure has as yet been generally accepted; it seems, however, probable that it is due to the influence of the serum, which becomes normal or anti-toxic. (14) From a therapeutic point of view recent cases should be operated upon if the peritonitis produces trouble, but a very early operation may have to be repeated. (15) Chronic cases should be kept under observation, and, if the tendency to spontaneous cure is not soon apparent, they should be operated upon. (16) The operation consists in a simple laparotomy, in evacuating the fluid and in closing the abdominal cavity; only when a co-existing and completely isolated genital tuberculosis of the genital organs is discovered, the radical abdominal operation is also to be performed.

OPHTHALMOLOGY.

Sudden Transitory Monocular Loss of Vision.

In the *Ophthalmic Review* for October there is a paper by Barrett, of Melbourne, and an abstract of one by Posey, of Philadelphia, on this affection. Barrett considers the pathology of circulatory origin, probably embolism *plus* spasm. Posey also attributes the symptom to spasm. In Barrett's case the disc was somewhat pale on the outer side, and the superior nasal vein constricted near the disc. On applying pressure, pulsation was produced in the vessels of the fundus, readily in the inferior vessels, but not at all in the superior nasal vein. When arteries crossed veins they appeared to compress them. Pulse rate was 46 per minute. Barrett thought the radial artery somewhat atheromatous, but Dr. Maudsley found no evidence of cardiac, arterial, or renal disease. An unusual feature of the case was the duration of the attack (five hours) with complete recovery and normal field. Posey relates three cases. In the first there had been three attacks, one of which, as in Barrett's case, lasted five hours. He noted evidence of marked arterio-sclerosis, and slight enlargement of the veins, and a history of rheumatoid arthritis. The second patient had had numerous attacks, apparently all, as with the first patient, in the same eye. No pathological change was found in the fundus. The condition of the vascular system is not mentioned, but the patient had had rheumatic fever and came of a gouty family. The third patient had a history of seven attacks, sometimes in one eye, sometimes in the other. The only note as to vascular system is that the veins of the fundus were slightly distended and tortuous, and the discs were possibly "a little paler than is quite usual." Posey refers to the suggestion that has been made, and acted upon, of doing an iridectomy in such cases, with the object of lessening intra-ocular pressure, but he does not think it proper to subject the patient to such an operation, which "in a certain proportion of cases, no matter how skilfully performed, renders the eye useless for visual purposes." He insists, however, on a treatment and regimen to combat arterio-sclerosis, and during the attack recommends nitrite of amyl and gentle active massage of the eye.

Operation for Pterygium.

McReynolds, of Dallas, U.S.A., publishes a modification of the usual transplantation operation. He dissects off the entire corneal portion of the growth, and then cuts with straight scissors along the lower border of the conjunctival portion for 6 to 12 mm. from the corneal margin. No incision is made along the corresponding upper border. The growth is carefully dissected up from the sclera "with any small non-cutting instrument." The conjunctiva below the incision is separated from the sclera. A thread, with a needle at each end, is passed through the free end of the pterygium; both needles are carried beneath the conjunctiva and brought out at the lower fornix, 3 to 6 mm. apart. The loosened conjunctiva is then raised and the free portion of the pterygium drawn under it by traction on the ends of the thread, which are then knotted. McReynolds has performed this operation in several hundreds of cases, and American surgeons speak highly of it.

Epithelioma of Eyelid treated with Adrenalin.

New York Medical Record, August, 1902. Case related by Marple, of New York. Patient, a lady, aged 45. Clinically and microscopally the growth was an epithelioma. Marple gave the patient adrenalin ($\frac{1}{1000}$) as a placebo, as she was leaving town for a time. Six months later the tumour had practically vanished, leaving a cicatrix as good as the surgeon could have expected to be present after operation.

The Rôle of Scleral Scars in Operations for Glaucoma.

Andogsky and Selensky, in *Knapp's Archives* for September, 1902. The writers, after discussing this much-vexed question and quoting authorities for and against the "permeability of scleral scars," and mentioning the experimental investigations carried out to determine the truth, describe their own recent methods of investigation and give the conclusions they formed.

Digitized by Google

They made sclerotomies in a number of rabbits with and without an iridectomy. After periods of from 8 to 145 days after the operations, injections were made into the anterior chamber either of 5 per cent. citrate of iron or of Indian ink emulsion that had been filtered several times. The injections were made simultaneously into each anterior chamber under precisely the same pressure, by means of a double branching rubber tube with Leber canulas leading from a funnel into which the solutions were placed, at a height of 41 to 45 cm. above the rabbit. After 30 minutes the rabbits were killed with chloroform, and the eyes removed and examined. The results showed that the permeability of the scar depended greatly on their age. When 8 to 14 days old the passage of pigment was very evident; when 21 to 40 days old very little pigment was found in the scar and subconjunctival tissue; and when 40 to 145 days old no trace of filtration could be discovered. They suppose that scleral scars in man cannot remain permeable much longer than in rabbits. They emphasise the fact that when anterior synechiæ form after the operation they impede, and, if total, prevent the aqueous from reaching the scar, and hence they argne that iridectomy is superior to sclerotomy, as the checks to the outflow of aqueous are removed.

Remedies.

Duane (*Knapp's Archives* for Sept.) recommends iodine-vasogen in treatment of corneal infiltrations (ulcerative). This is a non-irritant, syrupy, brownish liquid, containing 5 or 10 per cent. of iodine. Duane uses the 10 per cent. solution. The application is best made every second day till the infiltrate begins to shrink, then every third or fourth day until it disappears. It rarely causes pain, and preliminary use of cocaine is not necessary and is better omitted.

Bayer has used peroxide of hydrogen, 3 per cent. solution, for 17 years, and recommends it as a hæmostatic in lid operations, enucleations, etc. He uses it as a cleansing solution in all fresh injuries of lids or eyeball, and in the early stages of corneal ulcer. It also removes the crusts in blepharitis.

Reynolds (*Ophthalmic Record*) says adrenalin will relieve ciliary pain in all forms of keratitis, iritis, and even cyclitis. It will also reduce intra-ocular tension, and clear up interstitial opacities of the cornea, and is also useful in diseases of the lachrymal apparatus.

NEUROLOGY.

Royal College of Surgeons' Museum Catalogue.

There has just been published the second volume of a "Descriptive and Illustrated Catalogue of the Physiological Series of Comparative Anatomy" contained in the above museum. To the student of neurology the book is invaluable, for this volume deals only with the neurological specimens, and presents a practically complete picture of the evolution of the central nervous system. The descriptions of the invertebrata are by Mr. R. H. Burne, B.A. (Oxon.), who has also done the work in regard to the fishes, amphibia and birds, but the bulk of the work was entrusted to Professor Elliot Smith, M.D., of Cairo. The preface states: "Professor G. Elliot Smith, M.D., Fellow of St. John's, Cambridge, who has contributed so much to our knowledge of the brains of mammals, has described those of reptiles and the mammalia, his work forming by far the largest and most important part of this volume. He was assisted in the primates by Mr. W. L. H. Duckworth, M.A. (Cantab.)." The book contains not a mere list of the neurological specimens but a full account of each, together with an account of the general characteristics of the class to which each belongs.

The description of the vertebrata begins with the lowest fishes (Cyclostomi). The first specimen described is the brain of a lamprey (Petromyzon marinus). This is said to "consist of a slight enlargement of the anterior end of the cord, accompanied by a corresponding increase in the size of the central canal and its partial transverse division into three ventricles. Upon this foundation certain excrescences have been developed in connection with the senses of sight and hearing."

In the next division, the elasmobranchs, we have a great advance, since in these the optic lobes are well developed, the cerebellum is strongly marked, the medulla is large, whilst the most remarkable feature is the great development of the centres in connection with the sense of smell—olfactory bulbs and peduncles and cerebrum. There are also developed a well-marked thalamus with its accessory parts.

The next step is seen in the brain of the sea-cat (Chimæra monstrosa), where the cerebrum shows a marked inclination to divide into two hemispheres whose walls show considerable thickness. Here, instead of two long olfactory peduncles, we find the olfactory bulbs in close contact with the cerebrum.

The ganoids, such as the sturgeon (Acipenser sturio), show no definite advance, but are interesting in that they combine characteristics of the elasmobranchs, amphibia and bony fishes.

In a specimen of a codfish (Gadus morrhua), as representing the teleostei, we find a great change. The whole brain is concentrated longitudinally, the olfactory lobes are feebly developed, the cerebrum is practically represented only by basal ganglia, the cerebellum has become solid, and the optic lobes have become so large that they appear to be out of all proportion to the rest of the brain. In common with the elasmobranchs, especially with certain sharks, the dorsal longitudinal bundles are well marked; connected with the lateral portions of the large optic lobes the tracts of the fillet are well seen.

In the dipnoi, as represented by the Ceratodus forsteri, it is seen that the cerebral hemispheres are comparatively large, the optic lobes are small, the cerebellum is more strongly developed than in amphibia, but less so than in the teleostei. In the mudfish (Protopterus annectens) another member of the class, the cerebellum is still less developed, and there are no separate olfactory bulbs.

The amphibia have a brain resembling the dipnoi, but the cerebral hemispheres are the largest part of the brain and show incipient occipital lobes. The olfactory lobes are insignificant, and the optic lobes are small. The anterior commissure is divided into two parts—one representing the true anterior commissure of the mammalia, and the other representing the hippocampal. There is a trace of cortical structure, and this may represent a rudimentary hippocampus.

The reptilia show a great advance in structure, and in them the brain assumes the outward form, which is more or less characteristic of the higher vertebrates.

The cerebellum is very small, but there is a great advance in the condition of the cerebrum, which is larger and more highly differentiated than in any of the lower vertebrates. We find in them a well developed cortex, but it is nearly all hippocampal. The true cortex (Neopallium) of man is but feebly represented and has few connections; it follows that the parts connected with it are feebly developed or absent; there is thus no internal capsule, pes pedunculi, or pyramidal system. We have in reptiles the first cortico-sensory tract developed; this marks a great progressive stage, the tracts in question being those between the olfactory areas and the hippocampal cortex.

Digitized by Google

Among the reptilian brains are described models of the brains made from casts of the skulls of some extinct monsters such as a pterodactyl (Scaphognathus purdoni) and a dinosaur (Iguanodon mantelli). So far as can be judged, the brains combined reptilian and avian characteristics.

In the birds we find that the brain is remarkably constant in form throughout the whole class and may readily be distinguished by its form, and more particularly by the position of the optic lobes, from that of any other living creature. Its most characteristic features are the great development of the cerebrum, optic lobes and cerebellum. The size of the cerebrum is due almost entirely to the great development of the corpora striata. The posterior portion of the cerebrum reaches much further back than in any lower form, partly covering the optic lobes. The cerebellum projects forward. The mammalian divisions of the corpora striata can be made out, viz., the putamen nucleus caudatus and globus pallidus. In these brains for the first time appears a connection between the occipital region and the optic lobes. The cerebellum is relatively greater than in any vertebrates other than fish and mammals; it corresponds, as in the lower groups, with the mammalian vermis.

In the platypus (Ornithorynchus anatinus), the first member of the monotremata dealt with, the catalogue states that the brain exhibits unmistakable evidence of its conformity to the mammalian type, but that in certain points, especially in the arrangement of the commissural region, it essentially agrees with the structural plan common to most non-mammalian vertebrates. Two marked features are the large size of the cortex and the great development of the trigeminal nerve (Wilson and Martin) and its central connections. It is noted that Professor Martin has located motor centres in the cortex. This marks a distinct advance in the evolution of the cerebrum. The very characteristic features of this brain are dwelt upon, viz., the absence of a corpus callosum, the comparatively large size of the anterior commissure, and the position of the hippocampus in the great longitudinal fissure in the mesial wall of the hemisphere above the commissures. The cortex of the echidna (Tachyglossus aculeatus) is to some extent convoluted, but the convolutions are not the rudiments of sulci, which become permanent in the mammalian series.

The next advance is seen in the marsupialia, in which while the dorsal portion of the hippocampus persists, yet the ventral portion increases very much in size, coming to resemble the condition found in the true placental mammals. In many of the specimens of marsupial brains described, certain fissures can be made out which can be homologised with similar fissures in the carnivora.

With the hedgehog (Erinaceus Europeus) the catalogue passes to the insectivora, whose brains in many respects are of a low type, but which have this superiority over all with which we have yet dealt, that they have a corpus callosum.

The rodents are higher in most respects, but have, strangely enough, an almost completely smooth cortex, whilst possessing a well-marked corpus callosum.

The brains of the cheiroptera resemble very closely those of the insectivores, as do also the brains of the edentata.

"In the carnivora the brain attains to much larger dimensions in proportion to the size of the animal than is the case in the rodentia, edentata and insectivora, and this increase in size is to be attributed almost entirely to the larger growth of the neopallium." The brain bulges well over the cerebellum behind and the olfactory lobes in front. The arrangement of the sulci is more stable, and the type becomes, as it were, fixed in them.

With the ungulata we find that the chief differences depend upon slight variations in the arrangement of the sulci.

In regard to the sirenia it is said: "Amongst the whole series of placental mammals there is no other animal in which the brain presents features so extraordinary and so bizarre as in the sirenia. The only parallel which can be found for the peculiar cases presented by the manatee and the dugong is that occasionally presented in the brains of idiots, in which the process of elaboration has ceased in the earlier months of intrauterine life, and the organ has simply grown in size without becoming perfected in structure.

In the cetacea the plan of sulci, which we saw became more or less fixed in the carnivora, is here maintained, with the addition of innumerable smaller sulci.

Following on the descriptions of the various cetacean specimens comes a long and interesting account of the cortical changes to be traced through the various families of the primates.

OBITUARY.

Elsey Fairfax Ross, M.D. (Brux.), M.R.C.S. (Eng.), L.R.C.P. (Lond.)—1884, Sydney.

We regret to have to announce the death of Dr. Elsey Fairfax Ross at the early age of 45. He passed away at 153 Macquarie-street on Friday, December 26th, on the anniversary of his birth, and within a few doors of the house in which he was born. He was a son of Mr. J. Grafton Ross, now of Bournemouth, England, and formerly of the Colonial Sugar Refining Company. His mother was a daughter of the late Hon. John Fairfax. He received his school education in this State, and was for a time with Mr. S. H. Belcher, of Garoorigang, near Goulburn. Proceeding to England, he entered as a medical student at University College Hospital, London. Here he had a successful career, and was house physician to the late Dr. Wilson Fox, and was also clinical assistant at the Royal London Ophthalmic Hospital, Moorefields. He took the qualifications of M.R.C.S. (Eng.) and L.R.C.P. (Lond.) in 1884, and in the same year went to Brussels and took the M.D. degree. He returned to Sydney, via America, at the end of 1884, and soon afterwards was appointed to St. Vincent's Hospital, of which institution he was senior hon. physician at the time of his death. Later, he was appointed hon. surgeon to the Lewisham Hospital for Diseases of Women and Children. During the last few years his attention was devoted more especially to gynæcological work, and his practice in this department was steadily increasing.

He was of a quiet and retiring disposition, and preferred to spend his spare moments in the society of his family. He never sought to tread the devious ways which often lead to success—of a sort. He was inspired with high ideals, and having a kindly and sympathetic nature gained the esteem and affection of numbers of patients, very many of whom paid their last tribute of regard by being present at the funeral service at St. James' Church. Early in the year he went with his wife to New Zealand, and whilst on his holiday had two rather severe rigors; these he was inclined to attribute to influenza. On his return to Sydney he suffered from night sweats, and was obviously unwell. He continued at work for a time, and finally was persuaded to consult his friend, Dr. Sinclair Gillies. After being in bed for a week, a consultation was held on June 30th, 1902, and the illness was definitely decided to be ulcerative endocarditis. In spite of all treatment, including the free use of antistreptococcic serum, it ran its usual course. One can only speak in the highest terms of praise of the manner in which Dr. Ross bore himself throughout his illness.

Digitized by Google

During the long sojourn in what no one more than himself realised to be, in all human probability, the valley of the shadow of death, those who were privileged to minister to him could have nothing but the greatest admiration for his fortitude, patience and unselfishness: to the very last, truly, "his life was gentle." At his own request he was laid to rest near his mother in the Congregational portion of the Necropolis at Rookwood. The Rev. W. I. Carr-Smith conducted the funeral service.

In Dr. Ross the profession in Sydney has lost a type of practitioner which in these days grows uncommon and cannot readily be replaced. He was manly, yet gentle and full of feeling for suffering, and considered that medicine was, above all things, a profession and not a trade. He has left a widow and three sons, with whom we desire to express our deepest sympathy.

Emma Constance Stone, M.D. (Tor., 1888), Melbourne.

We regret to record the death of Dr. Emma Constance Stone, the pioneer lady physician of Australia, which took place on December 29th at the residence of her sister, Miss Clara Stone, M.B., St. Kilda, after a long illness. She was born in Hobart 46 years ago, and at an early age turned her attention to the study of anatomy, and subsequently decided to study medicine. Miss Stone, after careful inquiry, went to Philadelphia, where she studied at the Women's Medical College, the oldest medical college for women in the world. She studied later at Toronto, where she graduated as M.D. in 1888. In the following year Dr. Stone was continuing her studies in London, and in 1890 she settled in Melbourne and commenced the practice of her profession.

Dr. Maurice Cotton d'Englesqueville,

Formerly of Sydney, died suddenly in Paris on the 8th November. He was recently a resident of Hunter's Hill, and practised both there and in Sydney.

Robert John Allan, L.R.C.P. Edin., M.R.C.S. Eng., 1881, Balmain, Sydney.

We regret to record the death of Dr. R. J. Allan, of Balmain. He was a son of Mr. Alexander Allan, late manager of Crewe Engineering Works, who was also a director of the London and North-Western Railway Company. Deceased studied at the Edinburgh University, and after coming to New South Wales occupied for some time the position of medical superintendent to St. Vincent's Hospital, and from there he went to Raymond Terrace, where he practised for about eight years. He returned to Sydney and practised his profession at Dulwich Hill, where he remained for seven years, being compelled through ill-health to remove from the district. He then settled at Chatswood, and had offices at 129 Macquarie-street, city. Afterwards, in March, 1899, at the earnest solicitations of his friends, he joined the medical staff of the Balmain United Friendly Societies' Dispensary, in connection with which he made many friends by his genial disposition. For over three years he was a member of the honorary staff of the Balmain Hospital, but recently resigned in consequence of ill health, and was proceeding on a trip to Hobart on the steamer "Oonah" at the beginning of the year when he fell on the saloon companion of the vessel, and was picked up unconscious. On arrival of the vessel at Hobart, Dr. Allan, still in an unconscious state, was conveyed to the Hobart General Hospital, where he was received by Dr. Lines, and every attention was bestowed upon him. He, however, never regained consciousness, and expired at the institution on January 5th. In addition to an internal complaint, the deceased suffered from cerebral hæmorrhage. No doubt the fall on the steamer was a result of the doctor's illness. The remains were brought to Sydney, and interred in the Waverley Cemetery on January 13th.

PUBLIC HEALTH.

New Zealand.

ANNUAL REPORT OF THE CHIEF HEALTH OFFICER (DR. J. MALCOLM MASON) FOR 1901-2.)

(Abstract.)

Plague.—The system of quarantine in brief outline is as follows:—All passengers by ships from infected ports are carefully inspected by the port health officer before pratique is granted. Where no sickness exists on board, the passengers are allowed to land on condition that they report themselves for medical inspection twice until ten days have elapsed from the time of departure from the infected port. Ten days was chosen as being the extreme period of incubation of plague. All the personal luggage of the passengers is carefully fumigated before it is allowed to be taken ashore. The passengers may then proceed to any part of the colony, provided they report themselves at the appointed times set forth in their licenses. Should a passenger fail to report his name is immediately handed over to the police. For not reporting, a passenger is liable to a fine of £300. The system is now working very well. In addition to the careful examination of the passengers and crew, the ship herself is held in the stream for eight hours, during which time her cargo is fumigated. When she comes alongside the usual precautions are taken to prevent the rats coming ashore. The death from plague of a worker on one of the quays in Auckland in April last gave an exactitude to the danger which hitherto the local bodies had not quite realised. Early this year a circular was issued to all the medical men in the colony, asking them to be good enough to report any cases of unusual glandular swellings which might come under their notice. It was in consequence of this reminder that the Port Lyttelton case was detected at the early stage that it was. While it is desirable in every suspected case to endeavour to demonstrate bacteriologically the true nature of the disease, it is well to bear in mind that bacteriology has also a limitation. We have had cases where the clinical symptoms were suggestive of plague. Smears have been made, and no bacilli found; cultures have been made, and they were not absolutely diagnostic. A guinea-pig inoculated with the first culture survived the operation, while a sub-culture killed it in the usual time. Stated briefly, there have been three cases of plague the diagnosis of which has been confirmed bacteriologically, in addition to several cases of what may be termed "pestis minor" among children. Many times have I pointed out that now is the time to wage warfare against our rodents—that is, while to all intents our rats are unaffected with plague. If we wait until disease occurs again amongst them, all our efforts to clean up will only tend to drive into hitherto clean areas messengers of death whose potency for evil cannot be easily estimated. Plans have been made for the erection of an infectious diseases hospital for Auckland, so that within a very short space of time Auckland will be in a fair way of being considered safe. Christchurch and Nelson districts also decided to build similar hospitals. Wellington and Wanganui have already provided hospitals, and now there only remains Dunedin to complete the cordon of defence. While it is difficult to point out any better course of procedure which might be adopted when the rodents are infected with plague, it cannot be gainsaid that the disturbance of infected rats

Digitized by Google

and the driving them away into possibly hitherto unaffected areas must result in the dissemination of the disease. As I have already said, so far as repeated examinations go to show, our rodents at the present time are not affected with plague; clearly, then, any war which we may wage against them cannot endanger the other parts of the community.

SMALL-POX.—The non-observance for the last few years of vaccination in this colony is a condition of things which must cause every one interested in public health the deepest regret. Speaking roughly, only some 25 per cent. of our child population are protected against small-pox. As has been pointed out in a circular issued recently by the department, the colony has, owing to the long absence of this disease, been lulled into a sense of false security. While in no way agreeing with those who urge that all sorts of diseases, such as consumption and syphilis, can be transmitted by means of humanised lymph, it was decided last year that only pure calf-lymph should be employed. It is now an offence against the law for any medical man to use other than the lymph supplied by the Government, which is prepared under the most careful conditions. Last season, 1900, following the example of the Imperial Parliament, the House of Representatives introduced what is called the "conscience clause" into the Vaccination Act. It would be advisable, however, that Parliament should see its way clear to empower the Governor in Council to declare any area which in the opinion of the Health Officers is more than usually open to the introduction of small-pox a vaccination area in which for the time being vaccination should be compulsory.

LEPROSY.—During the past year some 40 or 50 cases of alleged leprosy among the native population have been investigated by officers of this department. So far as I am aware, there are only two cases of leprosy in the colony—that is, of course, excluding those cases which exist in some of the recently-annexed South Sea Islands. The majority of the Maori cases inquired into have turned out to be a mixture of syphilis and tuberculosis.

EXAMINATION OF RETURNED TROOPERS.—Early in October Cabinet decided that this department should undertake the examination of all troopers returning from South Africa. In addition to the gunshot wounds from which a good many of our returned men suffered, there were a large number of cases of malaria. Contrary to what might have been expected, there has been no case of the disease occurring in anyone who has not at some time or other been absent from the colony. It is at present the subject of experiment whether any of the variety of mosquitoes which we have in New Zealand are capable of acting as a medium of the disease between an infected person and an otherwise healthy one. There have been several cases of hæmaturia, due to the organism bilharzia hæmatobia. The presence of these organisms in the urine during the acute stage of the disease has been detected on many occasions. An unusual number of cases of very intractable type occurred during last year.

SANATORIA.—The necessity for the establishment of sanatoria for the treatment of consumptives is every day becoming more and more clamant. The residents in the various resorts to which consumptives go have become alarmed, and the life of these unfortunate people has been in some cases made harder. The scheme which was recommended was to erect a sanatorium in the North Island and one in the South, to which all cases susceptible of cure or improvement should be sent. For the more unfortunate cases which offered little or no hope of cure special provisions in connection with one of the small country hospitals in selected districts should be made.

INSPECTION OF DAIRIES.—By the passing of the Dairies Inspection Act of last year the control and supervision of all dairies was removed from the local authorities and placed in the hands of the Agricultural Department. The condition of things at present is very much worse now than it was under the old law. Prior to the passing of this Act the City Council of Wellington employed an officer whose sole duty it was to inspect and report upon the dairies within their district. As soon as the new Act came into force that official was dismissed, and since then not a single dairy or milk shop has been inspected except by an officer of the Health Department.

SEPTIC-TANK SYSTEM OF TREATING SEWAGE.—As the result of an article written at the request of one of the leading newspapers in the colony, we have had hundreds of applications for information on the subject. A sketch-plan of an installation suitable for a house of about ten people was issued by the department, and has been made great use of.

INFECTIOUS DISEASES.—Scarlet fever of a mild type spread over the greater part of the North Island; fortunately, there have been very few deaths. Diphtheria assumed the magnitude of an epidemic in Lyttelton during the latter part of 1901 and early part of 1902, some 60 cases in all occurring. There have been recently notified in Wellington 19 cases of diphtheria, which have been the subject of special inquiry by Dr. Valintine. Out of a total of 338 cases of enteric fever for the whole colony, Auckland district is responsible for 182. The general death-rate from zymotic diseases all over the colony is 10·26 per thousand, while the rate for Auckland is 30·8.

ANALYSIS OF FOODSTUFFS AND BEER.—On May 18th, Dr. F. T. King, medical superintendent of the Seacliff Asylum, advised Dr. Ogston, district health officer for Otago, that a patient had been admitted to the institution under his charge suffering from lead-poisoning, and suggesting that the poison had been introduced through the medium of beer. In consequence of this letter a complete analysis was made of the beer supplied at most of the hotels in the district. The use of lead pipes to convey beer from the cellar to the tap has long been known to be dangerous. Instructions are being issued to all licensing boards to disallow the use of pipes made of such material as can possibly contaminate the beer.

PTOMAINE-POISONING.—The occurrence of several cases of death from this cause, and the wholesale poisoning of the occupants of an hotel at Okoroire, prompted me to have a careful analysis made of many of the cheaper brands of tinned meat. There is no question that a considerable quantity of inferior meat comes into the colony. At various times during the last year quantities of fruit, potatoes, meat and fish have been seized and condemned at the instance of the department.

SPITTING IN PUBLIC PLACES.—Realising to the full the part which infected sputum plays in the spread of tuberculosis, several of the larger municipalities have passed a by-law prohibiting spitting in public places. The railway authorities have agreed to draw the attention of its passengers to the danger of indiscriminate expectoration.

BACTERIOLOGICAL WORK.—A vast amount of most useful work has been done. The medical men all over the colony are gradually realising the advantage of availing themselves of the help of our officers in the elucidation of doubtful cases. The completion of the new laboratory will in some degree lessen the undoubted danger under which the staff have laboured. It is proposed that as soon as it is ready all work with dangerous diseases, like plague, diphtheria, etc., shall be done in the special laboratory. I have to thank the medical

Digitized by Google

officers in charge of the various hospitals throughout the colony for their help, more especially Dr. Crooke, of Christchurch, for the use of his laboratory during my bacteriological investigation of the first case of plague in Christchurch, and Dr. Collins, of Auckland, for the services which he rendered with respect to the case of V., in Auckland.

Notification of Infectious Diseases.—The following diseases have been put upon the list of those which it is required the medical attendant and householder must notify the Health authorities of:—Typhus fever, enteric fever (typhoid), scarlet fever, small-pox, diphtheria, blood-poisoning, bubonic plague, tuberculosis, measles, leprosy, cholera, yellow fever, influenza. There is one disease upon the notifiable list (tuberculosis) which is treated in a way different from all the others. Medical men are allowed great license with regard to this disease, because until the Government has provided sanatoria for the reception of such cases it would be unjust to do more than counsel the poor sufferer. Only those in that stage when expectoration is free and contains bacilli are required to be recorded.

Sanitation among the Maoris.—One serious obstacle in the way of any great sanitary reform among our native brethren is the poverty of many. A great improvement has, however, been effected in some parts, and doubtless with perseverance greater reforms will result. Drunkenness has in a very great measure disappeared, and now the Maoris may truly be termed a sober race.

Enteric Fever and Oysters.—Early this year the various district health officers were requested to examine the oyster-beds, especially with regard to their possible contamination with sewage, the methods employed in storing oysters, and the condition of the wholesale and retail shops where they were sold. There have been at least two outbreaks of enteric fever traceable to pollution of the storage-beds or uncleanly handling of oysters. In Blenheim several cases of this disease were traced to this source. It had been a common practice for the oyster-sellers to store the oysters along the foreshore that they might be fattened, and it was found in several instances that the dealers were in the habit of placing them in baskets made of flax at the mouths of the sewers. There were in all 10 cases of enteric fever in Picton and Blenheim in which oysters were the only thing common to the patients, and, as a matter of fact, no other cases occurred after the above filthy procedure was abolished. In Auckland the oysters undoubtedly, in the great majority of the cases, were contaminated during their sojourn in the shops.

Staff.—During the past year Port Health Officers have been appointed at the following ports—Whangarei, Westport, Timaru, Oamaru, Wanganui, and Picton—in addition to those already holding such offices: Dr. Frengley has been appointed a District Health Officer; Dr. Valintine has been gazetted Assistant Chief Health Officer; much of the smoothness with which the Department has run is due to his tact and knowledge of human nature.

REPORT OF PATHOLOGIST.

Sputa.—Ninety-eight specimens of sputa have been examined for tubercle bacilli. In 57 of these no tubercle bacilli could be demonstrated.

Diphtheria.—Swabs from the throat of 35 suspicious cases have been submitted for examination. In each case the microscopical examination has been supplemented by the inoculation of gelatinised ox serum for more definite bacteriological diagnosis. In 12 of these cases the examination confirmed the suspicion of diphtheria, the result of the remaining 23 examinations being negative.

Water Analysis.—Thirty samples have been received for bacteriological examination. In nearly every instance the result confirmed the suspicions of the officer that the water was not fit for potable purposes. In some instances 50,000 micro-organisms per cubic centimetre were found.

Widal Test for Typhoid.—Only six samples of blood have been received, and of these only two gave a definite result on the application of the test.

Bubonic Plague.—Specimens from Affected Patients.—No. 1, V.: The first specimen received consisted of smears on slides and pipettes containing blood. Examination gave no definite results. A few days later a culture on agar was received, which contained unmistakably the true bacillus pestis. No. 2, S.: Typical cultures made by the chief health officer and pipettes of blood were submitted for examination. Examination of the blood-pipettes, after they had been in the incubator for 48 hours, showed enormous numbers of the characteristic bacilli in a state of purity, from which fresh cultures were made. No. 3, Boy, Lyttelton: Culture-media inoculated by (syringe) needle from bubo: Only one or two large colonies of staphylococcus albus had developed, and, although clinically an undoubted case of plague as observed by Dr. Mason, no colonies of the bacillus developed. No. 5, N.: Examination showed this to consist almost solely of a coccus, ultimately demonstrated to be the streptococcus, and a short bacillus, which morphologically was similar to that of the plague. Efforts were made to separate this bacillus, and a guinea-pig (363) was inoculated with a colony apparently pure. Three days later the prerural gland above the seat of inoculation was found to be enlarged, and at the point of inoculation there was a slight indication of pus, but no swelling. Two days later the glandular swelling had disappeared, and the guinea-pig was quite normal. At that time I was of opinion that the plague-like organism was a purely accidental one. A day or two later, however, on re-examining sub-cultures of this organism, I was struck by their appearance, which was characteristic in every way of cultures of plague, they having the peculiar glistening appearance, being of extremely sticky consistency, and morphologically showing all the peculiarities of bacilli grown on artificial media. An attempt was then made to ascertain if this were simply a bacillus with very feeble virulence, and a guinea-pig was inoculated with a fresh sub-culture, *plus* a sub-culture of diphtheria bacillus recently isolated. As a result death ensued in slightly over five days, the body showing post mortem all the characteristic lesions of a guinea-pig dead of the disease after that lapse of time—*i.e.*, enormously enlarged gland above the seat of inoculation, swollen and mottled spleen, but lungs and pleura healthy. This last series of experiments is, I venture to submit, of some importance. The patient was affected with a simple bubo, and was isolated on the clinical features of the case, at most as a case of *pestis minor*. Before the above experiments had been completed the patient had completely recovered, and had been discharged. The value of clinical evidence and the possibility of an incorrect conclusion being arrived at through the failure of experimental proof by ordinary methods are thus amply demonstrated.

Rats.—During the past few months 150 rats, chiefly from various parts of the City of Wellington, have been carefully examined post mortem at the laboratory. In all instances where the slightest suspicion existed after the microscopical examination, further tests were made by the inoculation of various culture-media, and in several instances these were further supplemented by experiments on rats and guinea-pigs. In no instance did we succeed in demonstrating that a single plague-infected rat had been found in the City of Wellington or its vicinity.

Digitized by Google

GENERAL SPECIMENS.—Fifteen samples of urine for various examinations were received. The suspected conditions were tuberculosis, tube-casts, pyo-nephritis, etc. The remainder of the materials submitted was of many varieties, such as suspected gonorrhœal discharges, vomit, fæcal discharges, discharges from wounds, expectorations (one of which contained typical actinomyces nodules), etc.

Outbreak of Anthrax.—An outbreak of anthrax has occurred in Southland. This makes the ninth outbreak since March 31st of last year. The chief Government veterinarian has ascribed them to imported bonedust not having been sufficiently sterilised before being imported into the colony. This outbreak is the first known in the South Island, previous outbreaks having been all in the North Island, at Auckland, the Waikato and Taranaki.

Vital Statistics. — The Registrar-General's report for the quarter ending Sept., 1902, shows that the births in the four principal towns, *i.e.*, Auckland, Wellington, Christchurch and Dunedin, numbered 1357, or 6·79 proportion to 1000 of population; and the deaths recorded were 732, or 3·66 per 1000. Of these deaths, 203, or 27·83 per cent., were of children under five years of age; and of this number, 157 were of those under one year of age. The chief causes of deaths were: zymotic diseases, 65; constitutional diseases, 132 (cancer 45, phthisis 51); developmental diseases, 76 (premature birth 32); local diseases, 393 (diseases of nervous system 76, the circulatory system 88, the respiratory system 133).

New South Wales.

Preservatives in Food. — Dr. Ashburton Thompson, president of the Board of Health, states that hitherto there has been no regulation in force fixing the amount of preservatives that may be used in the manufacture of food (including drinks) of all kinds. This omission has been remedied by the adoption of the following regulation, which will come into operation on February 2nd:—1. Any one antiseptic or any one antiseptic preparation may be mixed with any food in proportions not exceeding $\frac{1}{1000}$ of one grain per pint in the case of liquid foods, and of $\frac{1}{1000}$ of one grain per lb. in the case of solid foods; provided that the label required by section 86, sub-section 2, of the Act, to be affixed to the vessel or parcel containing food mixed with antiseptics or with antiseptic preparations in accordance with this regulation, be in the form given in schedule L, and be printed on a white ground in black capital letters of the size known as "two-line brevier sans serif," and contains no other matter. 2. The following substances shall be deemed to be antiseptics and antiseptic preparations for the purposes of this regulation:—Formaldehyde and its preparations, boric acid and its preparations, hydrofluoric acid and its preparations, sulphurous acid and its preparations, benzoic acid and its preparations, salicylic acid and its preparations, and derivatives of coal tar, whether direct or indirect." These new regulations have provoked a considerable amount of controversy amongst analytical chemists and manufacturers. It is maintained that the quantity of preservative allowed to be used is so infinitesimal as to be absolutely prohibitive. Some manufacturers hold that in the warm climate of New South Wales the moderate use of preservatives is absolutely essential to prevent the creation of ptomaines in certain descriptions of tinned foods. The representatives of the aërated water manufacturers have interviewed the board on the subject, and as the result of a long discussion the manufacturers have decided to agree amongst themselves as to what amount of preservative they desire to use in their cordials. When their request is received by the board it will be considered. In like manner the board will deal with similar requests when made by other manufacturers.

Amended Health Regulations. — In view of the experience gained by the health authorities in connection with the bubonic plague, and the operation of that section of the Health Act which requires municipal authorities to notify any outbreak of an infectious disease, the president of the Board of Health, Dr. Ashburton Thompson, states that a prescribed form of register has been drawn up in such a manner that there must be a constant inspection of houses by the local municipal authorities. Hitherto some of the municipalities have discharged this duty in a perfunctory manner. Since 1901 a great improvement in this respect has taken place, and it is hoped that the new regulation will prove still more effective. In order that the result of inspection of houses that have become unhealthy by decay, as well as of inspections connected with cleansing operations, may not be lost, a complete record of these must be kept and be open for reference at any time. Hitherto no time has been fixed within which a copy of the report of a local authority or health officer has to be sent to the Board of Health. The regulation has now been amended so as to require the report to be handed in within seven days.

Sickness at Broken Hill.—An epidemic of sickness has occurred at Broken Hill. During a previous water famine at Broken Hill a similar epidemic of sickness broke out, hence the health authorities came to the conclusion that impure water was the cause of the present outbreak. This view is held by the medical men of Broken Hill, and Dr. Millard, Assistant Government Medical Officer, is at present at Broken Hill analysing the water, with a view of determining the amount of decomposed vegetable matter which it is asserted to contain, and which is said to be one of the principal causes of the outbreak of sickness.

Vital Statistics.—During the quarter ended December 31, 1902, there were 3272 births in the metropolis of Sydney, equivalent to a rate of 6·51 per 1000 of population, and the deaths were 1613, or 3·21 per 1000 of population. These totals are respectively 283 and 58 greater than the average for this quarter during the previous five years. Numerically the birth list is the greatest since 1893, and relatively to population is slightly above the rate which had been experienced of recent years. The death rate as to numbers exceeds the record of all years of the preceding decennium, excepting those of the years 1893 and 1898. The quarterly zymotic rate exhibits great improvement, there being a reduction of 58 on the quinquennial average, equal to about 27 per cent. of the total. There have been decreases in the number of deaths from measles, influenza, whooping cough, and diarrhœal diseases, the combined mortality from these causes being 71, as against the average of 161 for the quarter during the previous five years. The figures have remained about stationary with respect to diphtheria, but an increase is noted in scarlet, typhoid and puerperal fevers, and in other zymotics, which combined give a quarterly number of 82 against the average for this combination of 51. Constitutional diseases show an increase on the quinquennial figures from 270 to 320, or 19 per cent., the excess being caused mainly by the advance in cancer from 87 to 109, and of phthisis from 121 to 146. A most striking advance has occurred in deaths from diseases of the digestive system, the numbers having been from an average of 233 for the previous five years to 375, or an increase of 61 per cent. for the quarter,

Digitized by Google

due mainly to the prevalence of enteritis during November and December. The quarter's figures for enteritis are 279, as compared with 159, the quinquennial rate, or an increase of 75 per cent.

Victoria.

Oil for the Streets.—The Melbourne City Council is about to follow in the steps of the Sydney civic authorities by testing the efficacy of oil as a means of mitigating the dust nuisance. A shipment of 42 barrels of oil has arrived from America, and the city surveyor will arrange for its distribution as soon as the necessary appliances are prepared.

South Australia.

Vital Statistics.—The births registered in South Australia, exclusive of the Northern Territory, during the months of August and September, 1902, numbered 1638, or 2·28 per 1000; the quinquennial average, 1897-1902, being 1607. The deaths during the same period numbered 683, or ·95 per 1000. Of these deaths, 85, or 12·44 per cent., were of children under one year of age. The chief causes of death were: zymotic diseases, 92; constitutional diseases, 128 (cancer 43, phthisis 43); developmental diseases, 75; local diseases, 323 (diseases of the circulatory system 92, respiratory system 60). In the city of Adelaide during the same two months, 170 births, or 2·16 per 1000, were recorded; the quinquennial average being 180. The deaths registered numbered 160, or 2·03 per 1000. The chief causes of deaths being: zymotic diseases, 12; constitutional diseases, 32 (cancer 9, phthisis 10); local diseases, 79 (diseases of the circulatory system 24).

UNIVERSITY INTELLIGENCE.

ADELAIDE.

At the recent Commemoration the undermentioned graduates of other universities were admitted *ad eundem gradum*:—Charles Henry Reissmann, M.D., University of Cambridge; John Burton Cleland, M.D., University of Sydney; Ernest Lincoln Borthwick, M.B., C.M., University of Edinburgh; Oscar Sydney Flecker, M.B., Ch.M., University of Sydney; Clement Armour Verco, M.B., Ch.M., University of Sydney; William Jens Gregerson, M.B., B.S., University of Melbourne.

SYDNEY.

The following results of the recent examination in the faculty of medicine have been announced:—

First Year Examination.—Renwick Scholarship: J. L. Shellshear. Slade prize for practical physics: J. L. Shellshear. Collie prize for botany: A. MacInnes, B.A. Professor Haswell's prize for laboratory notes: C. H. B. Bradley, H. R. G. Poate, W. J. White. Pass (alphabetical): H. V. D. Baret, C. H. B. Bradley, H. O. Chapman, H. W. Conolly, F. Craig, J. E. P. Deakin, J. G. Edwards, L. B. Elwell, J. J. Gilchrist, R. E. McClelland; A. MacInnes, B.A.; A. J. Mackenzie, H. M. O. Moran, H. R. G. Poate, E. H. Rutledge, H. H. Schlink, J. L. Shellshear, F. C. Stokes, C. W. Thompson, W. Vickers, W. J. White. Chemistry.—Honours: Class I., J. L. Shellshear; Class II., A. MacInnes, B.A., G. A. Paul. Biology.—Honours: Class II., A. MacInnes, B.A.; J. L. Shellshear, H. H. Schlink. Physics.—Honours: Class II., J. L. Shellshear.

Second Year Examination.—Passed with Distinction.—T. C. Parkinson. Passed with Credit.—H. T. C. McCulloch, G. Bell; J. S. Harris, S. H. Harris, T. L. O'Reilly, æq.; E. A. Wherritt, J. S. Aspinall, R. A. Parker, A. C. Cahill, J. G. W. Hill, æq.; C. R. Palmer, J. B. St. Vincent Welch, æq.; Pass (alphabetical): Constance C. Binnie, J. P. Clifford, D. D. Gibson, D. H. Graham, Margaret H. Harper, G. H. S. Lightoller, A. McKillop, E. H. Molesworth, A. A. Moseley, H. W. Palmer, C. P. Sapsford.

Third Year Examination.—John Harris Scholarship for Anatomy and Physiology: C. Quaife. Passed with Distinction: C. Quaife. Passed with Credit: W. T. Quaife, J. R. Leslie, Susannah H. O'Reilly; J. L. McKelvey, J. W. Power, F. G. M. Simpson, æq.; E. Culpin. Pass (alphabetical): J. Cohen, L. Cowlishaw, E. J. Day, J. N. Griffiths, E. S. Harrison, L. P. Johnston, V. McDowall, A. S. C. Roberts, C. Shellshear, P. E. Smith, A. Verge, G. H. Vernon, R. J. N. Whiteman, G. H. Young.

Fourth Year Examination.—Passed with Credit: G. A. Buchanan, T. P. Connolly; C. S. Browne, Constance E. D'Arcy, W. Mawson, æq.; T. E. C. Higgins. Pass (alphabetical): V. Benjafield, R. S. Godsall, N. W. Hansard, H. O. Lethbridge, St. A. W. L. McDowall, R. Perkins, Alice Pritchard, B.A., A. B. Phillips, G. G. Sharp, B.Sc., M. M. Vernon.

Fifth Year Examination.—Passed with Credit: St. J. W. Dansey, S. A. Smith, æq.; P. L. Hipsley; M. J. Plomley, J. S. Davis, R. E. Woolnough, J. H. Cahill. Pass (alphabetical): P. N. Aitken, P. S. Clarke, A. J. Corfe, L. B. H. Conroy, H. E. Fox, E. M. Humphrey, H. S. Marsh, T. W. Mason, E. L. Newman, L. J. Robertson, F. M. Suckling, J. H. Thomson, R. A. P. Waugh.

Honours at Graduation.—M.B. and Ch.M.—Class 1: None. Class 2: St. J. W. Dansey, P. L. Hipsley, S. A. Smith; T. W. Mason, J. S. Davis, æq.; R. E. Woolnough, M. J. Plomley, F. M. Suckling.

HOSPITAL INTELLIGENCE.

Brisbane Hospital.—For years it has been the custom for the hospitals to receive fines forfeited in regard to bails from the police court. For some unexplainable reason, the fines in the Brisbane courts are now being diverted into the Treasury, which means a loss of £400 per annum so far as the general hospital is concerned.

Sydney Hospital.—At the monthly meeting of the board of directors of the Sydney Hospital held on January 6th, correspondence was received from Dr. Goode, conveying thanks for appointment to the honorary consulting staff; from Dr. Maitland, conveying thanks for appointment as honorary surgeon; from Dr. Camac Wilkinson, withdrawing application for the appointment to the honorary consulting staff. It was decided to invite applications to fill the position of junior assistant gynæcological surgeon—a new appointment—and a proposal to appoint a second senior honorary aural surgeon from amongst the present staff was approved.

Launceston Hospital.—At a recent meeting of the board a letter was read from the Chief Secretary stating that £1200 had been voted for the Launceston Hospital for 1903, with another sum of £1200 on the £1 for £1 principle. This sum is looked upon by members of the board as altogether inadequate, and it was decided to write to the Government to that effect.

Hobart Hospital.—At the monthly meeting of the Hobart Hospital Board on December 12th, Dr.

Digitized by Google

Sprott wrote resigning his position as honorary pathologist owing to his professional engagements leaving him insufficient time to attend to the duties. The resignation was accepted with regret, and a resolution passed thanking Dr. Sprott for the very able work he had done for many years in connection with the institution. The chairman gave a *resumé* of the year's work in connection with the hospital. He especially referred to the continual increase of work in the operating theatre. In June last they received the X-rays apparatus, with which very excellent work had already been done. Electricity was now laid on from the Gas Company's electric wires, and they were only waiting for the motor generator to enable them to charge the apparatus on the premises. In July the board received an intimation from the Chief Secretary that the Government subsidy would be materially reduced. A strong protest was made by the board, who were informed that they would have to put up with it. An application to the Government to pay for some repairs that were much needed had been peremptorily refused. The Government now thought that all contagious diseases cases could be treated entirely away from this institution, so that a new isolation hospital within the grounds of this institution would not be necessary. There were £5000 voted for the new building, and if that was no longer necessary surely the repairs he had referred to should be effected, the cost being about £300. A lift was also much needed for conveying patients to the upper rooms of the buildings. He attributed the improved position of the board's finances to the great vigilance exercised by the committee in looking after the fees, and the improved prosperity of the country districts.

Callan Park Asylum.—A number of necessary improvements have just been completed at the Callan Park Asylum for the Insane, Sydney. In order to cope with the growing requirements of the hospital, additional accommodation for visitors had become necessary. Six new apartments have been built. These structures are located close to the main hall and offices, and are well lighted and ventilated. Extra lavatory accommodation has also been provided, and the whole will be lighted with gas, standards of a new design being used. A new morgue is also in course of construction at the asylum, and considerable improvements will be made in connection with the drainage of the buildings and grounds.

Hospital for Sick Children, Sydney.—On December 21st Sir Harry Rawson, K.C.B., opened the new out-patients' department in connection with the Hospital for Sick Children. The Chairman (the Hon. R. J. Black, M.L.C.), in formally welcoming his Excellency to the institution, referred to the necessity which had arisen for the erection of the new premises. For the year 1900 the number of attendances of outdoor patients was 9980, whereas in 1901 the number had increased to 15,522, which number was far too large for the limited accommodation in the hospital at the Glebe. This year the out-patients were expected to number 20,000. His Excellency said that he had pleasure in declaring the hospital open, and hoped that it would continue long to do good work. Dr. Clubbe, who has been identified with the Children's Hospital for 20 years, also addressed the gathering.

Balmain Hospital.—At a special meeting of the Balmain Hospital committee, held on January 9th, a letter was received from the medical officer to the institution, Dr. L. Gordon Davidson, resigning his appointment. He said he had resolved not to attend to the urgent and accident cases any longer, and objected to being regarded as a paid servant. He was prepared to conduct the out-patients' department (except accidents and urgent cases) without salary of any kind, providing the committee would give him power to act without let or hindrance. Considerable discussion ensued. A notice to receive the resignation was rejected, and an amendment to ask Dr. Davidson to reconsider his decision was carried.

MILITARY INTELLIGENCE.

SOUTH AFRICAN OFFICERS.

Permanent and Militia Officers.—The following New South Wales officers, who, on appointment to a contingent were serving, or who are now serving, in the military forces, will be entitled to the honorary rank shown above their names:—

To be Honorary Surgeon-General—Colonel William D. C. Williams, C.B., to date from April 3, 1900; (medical staff) Captain Terence A. Green, D.S.O., to date from February 11, 1902; (medical staff) Lieutenant Reginald N. Howse, V.C., to date from February 11, 1902.

Civilians entitled to Honorary Rank.—The following civilians who held commissions in one or other of the contingents, but are not connected with the military forces of the Commonwealth, have received the honorary rank shown before their names:—

To be Honorary Majors—(Medical staff) Robert Scot Skirving, to date from January 17, 1900; (medical staff) Alexander McCormick, to date from January 17, 1900.

To be Honorary Captains—(Medical staff) William R. Cortis, to date from January 17, 1900; (medical staff) George L. L. Lawson, to date from April 21, 1900; (medical staff) John B. Meredith, to date from July 24, 1900; (medical staff) Alexander Fullerton, to date from March 27, 1902.

To be Honorary Lieutenants—John E. Oxley, to date from April 12, 1900; (medical staff) Francis W. Kane, to date from April 21, 1900; (medical staff) Theodore H. Barker, to date from February 28, 1901; (medical staff) Henry C. M. Melohery, to date from February 28, 1901.

NEW ZEALAND.

Blakewell, Robert H., Surgeon-Captain (Ninth New Zealand Contingent), to be Surgeon-Major, and with effect from November 3, 1902.

A Sick-Room Decalogue for Nurses.

The following ten commandments for the regulation of the sick-room are taken from an American journal:—

1. Thou shalt remove surplus rugs, furniture, etc., and make ample room for thy work.
2. Thou shalt maintain perfect ventilation without draughts.
3. Thou shalt keep the patient clean and quiet.
4. Thou shalt foresee the needs of thy patients. Don't let them ask for everything.
5. Thou shalt promptly remove and burn all sputum and thoroughly disinfect all culinary utensils and vessels used by the patient.
6. Thou shalt restrict visiting, loud talking, and, above all, whispering in the sick chamber.
7. Thou shalt not ask the sick what they want to eat; rather say, "I have prepared something dainty, and I want you to eat it."

Digitized by Google

8. Thou shalt not annoy the sick by telling thy troubles, sad experiences, and all thou knowest.
9. Thou shalt let in the sunshine, and try to be a sunbeam thyself.
10. Thou shalt remember that the tenth commandment is to mind thine own business, follow directions faithfully, cheerfully, and promptly, and the sick will arise and call thee blessed.

MEDICAL NOTES.

Charitable Donations.—Mr. C. H. Hannell, the promoter of the recent benefit race meeting, has handed the Newcastle Hospital a cheque for £450 2s 9d in the form of a Christmas gift as the proceeds of the function. At the time of the Commonwealth celebrations the Scandinavian citizens decided to commemorate the occasion by endowing a cot at the Children's Hospital, Sydney, in perpetuity. By means of personal contributions and the holding of a Scandinavian fête in the Town Hall a sum of nearly £700 was raised. The Scandinavians have completed their gift, making up the sum of £1000, which has been received by Mr. Thomas Pratt, the organising secretary.

A Royal Physician. — Queen Amelie of Portugal has taken her degree of M.D. and is now the chief physician of her husband, King Carlos, and of her children. The Queen's great hobby is medicine, but she has written and published treatises on a variety of scientific subjects, as well as a volume of poems. Like her mother, the accomplished Countess of Paris, the young Queen is passionately fond of horses and dogs, and has written a very entertaining volume of "Animal Anecdotes," being true stories of her own pets. The Queen devotes most of the time she can spare from the imperative duties of her position to scientific and literary pursuits; she also has the entire supervision of her two sons' education.

PERSONAL ITEMS.

Dr. J. B. McIlroy has removed from Annandale and succeeded to the practice of Dr. Graham, of Balmain.

Dr. E. Tudor Jones has succeeded to the practice of Dr. McIlroy at Annandale, Sydney.

The will of the late Dr. Alexander Kinnear Morson, who died at Wyalla, North Sydney, on November 15th of last year, has been admitted to probate. The testator for many years practised his profession at West Maitland, and his estate is sworn at under £13,955 8s 1d.

At the Central Police Barracks, Sydney, on December 30th, Dr. G. H, Taylor, Government Medical Officer and Pathologist, who was recently married, was the recipient of a handsome solid silver tea and coffee service and salver from the non-commissionod officers and men of the metropolitan police force. Senior-Sergeant Brooks, of No. 1 Station, presided. Sergeant J. Wallace, of the Water Police, in making the presentation, referred to the high respect and esteem in which the recipient was held by the police force and the appreciation of his sterling qualifications. He trusted that their relations would be as pleasing in the future as they had been in the past. The salver bore the following inscription:—"Presented to Dr. G. H. Taylor by the members of the Sydney police as a token of respect and esteem on the occasion of his marriage. 23/11/1902." During the evening Dr. Taylor was also the recipient of a gift from Sub-Inspector Sherwood, of No. 1 Station.

Dr. Reginald Horace Hill, of Tocumwal, New South Wales, has been appointed a justice of the peace.

Dr. E. J. Roberts, a graduate in medicine of the University of New Zealand, has commenced practice at Murray-street, Hobart.

Dr. Ashwell, of the Glebe, Sydney, has retired from practice and removed to his country house at the Kurrajong.

Dr. P. Sydney Jones, jun., has succeeded to the practice of Dr. Ashwell at the Glebe, Sydney.

Dr. Roland Pope has returned to Sydney after a trip to Europe and America, and has resumed practice at Macquarie-street.

Dr. Maynard Pain in a recent letter from the hospital at Old Cairo tells of the great strain that he and others have passed through during the recent terrible outbreak of cholera. The beneficent work of the hospital and of the medical missionary has been illustrated in the good services rendered to a people who are ignorant in dealing with the most simple cases of sickness.

Dr. Robert Willmot has been appointed chairman of the board of official visitors to the Hospital for the Insane, New Norfolk, Tasmania.

Dr. F. G. Webster, late of Melbourne, has started in practice as a specialist in eye, ear and throat work in Wellington, New Zealand.

Dr. A. Zimpel, late of Young, New South Wales, has sailed for Europe and the Continent for study, and purposes returning to Australia in 18 months.

Dr. C. V. Bowker has resigned the appointment of medical superintendent of the Sydney Hospital, and intends starting in private practice.

Dr. Alfred William Hill has resigned the appointment of honorary surgeon to the department of diseases of the ear and throat at the Adelaide Hospital, South Australia.

Dr. W. B. Violette, who is relinquishing his position as Government medical officer at the Rookwood Asylum, Sydney, has been made the recipient of several presentations from the superintendent and staff, along with a letter from the inmates, expressing their sincere regret at his departure. The presentations comprised a silver cigar-case, silver matchbox, tobacco-pouch, gold-mounted cigar-holder, and a gold-mounted companion, each engraved with the monogram of the recipient. Dr. R. A. Fox has been appointed to succeed Dr. Violette at Rookwood and Newington Asylums.

MEDICAL APPOINTMENTS.

NEW SOUTH WALES.

Sydney Hospital.—The following have been appointed Resident Medical Officers for 1903:—Drs. H. S. Marsh, C. N. Thomson, P. G. Aiken, R. A. P. Waugh, A. J. Corfe and L. J. Robertson.

Digitized by Google

Fox, Dr. Robert Algernon, Senior Medical Officer at the Coast Hospital, to be Visiting Medical Officer, Rookwood and Newington Asylums for the Infirm.

Graham, Edward Alfred, M.B., Melb., to be Visiting Surgeon to the Gaol at Deniliquin.

Maitland, H. L., M.B., Ch.M., Syd., to be Honorary Surgeon, Sydney Hospital, *vice* W. H. Goode, M.D., resigned.

Stacy, H. Skipton, M.D., Ch.M., Syd., to be Honorary Assistant Surgeon, Sydney Hospital, *vice* H. L. Maitland, M.B., Ch.M., Syd., appointed Honorary Surgeon.

Sharp, W. A. R., B.A., M.B., Syd., to be Medical Officer at Coast Hospital, Sydney.

SOUTH AUSTRALIA.

Caw, Alexander Ruan; Clayton, Arthur Ross; Mayo, Helen Mary; Muecke, Francis Frederick; and Wells, Clement Victor, to be Resident Medical Officers in the Adelaide Hospital.

Cook, H. F., to be Medical Officer to the destitute and aborigines within the township of Redhill and within a radius of 12 miles therefrom.

Douglas, Francis John, M B., of Port Victor, to be a Public Vaccinator.

TASMANIA.

Holmes, Louis Saenger, L.R.C.S., L.R.C.P., L.F.P.S.G., to be appointed to the Honorary Medical Staff of the Launceston General Hospital.

Triado, Dr. Antonio, to be Junior House Surgeon, General Hospital, Hobart.

Walpole, Dr., to be Medical Officer to the Mount Lyell Mines Medical Union, Gormanston, *vice* Dr. Skinner, resigned.

NEW ZEALAND.

Burrell, Adam Guthrie, M.B., M.S., Glasg., 1892, to be a Public Vaccinator under "The Public Health Act, 1900," for the District of Rakaia.

Finch, Hugh Earnshaw, M.B., B.Ch., 1898, D.P.H., etc., to be a District Health Officer for the purposes of "The Public Health Act 1900."

Locking, Benjamin, L.R.C.P., Lond., 1867, etc., to be a Public Vaccinator for the district of Napier.

Smith, John Carmichael, L.R.C.S.I., 1891, etc., to be a Public Vaccinator for the district of Mangaweka.

PROCEEDINGS OF AUSTRALASIAN MEDICAL BOARDS.

NEW SOUTH WALES.

Ffrost, Valiant Galfred, L.R.C.P. Edin. 1902, L.R.C.S. Edin., L.F.P.S. Glasg. 1902.

Horton, William Henry, M.B. Univ. Syd. 1902.

Kirkwood, John, M.B., M.S. 1895, Univ. Glasg.

Rice, Hubert Richard, L.S.A. Lond. 1897, M.R.C.S. Eng. 1899, L.R.C.P. Lond. 1899.

Taylor, Alfred Ernest, M.B., B.S. 1892, M.D. 1895 Univ. Dub.

For Additional Registration.

Hawthorne, Ernest Sydney, F.R.C.S. Irel. 1900.

TASMANIA.

Roberts, Edward John, M.B., B.S. Univ. New Zealand 1891. (Address, Hobart.)

QUEENSLAND.

Maclean, James Megaw, L.R C.S., L.R.C.P. Edin., L.F.P.S. Glasg. 1901.

BIRTHS, MARRIAGES AND DEATHS.

BIRTHS.

ALSOP.—On November 30th, at Bairnsdale, Victoria, the wife of C. J. Alsop, M.B.—a daughter.

DRAKE.—On November 17th, at Macquarie-street, Hobart, the wife of F. J. Drake, M.B.—a son.

HEWLETT.—On December 12th, at 116 Nicholson-street, Fitzroy, Victoria, the wife of Herbert M. Hewlett, M.R.C.P.—a daughter.

JAMIESON.—On January 4th, at 4 Lyons-terrace, Sydney, the wife of Sydney Jamieson—a son.

POPHAM.—On December 9th, at Gawler, South Australia, the wife of F. W. Home Popham, L.R.C.P., M.R.C.S., etc.—a daughter.

SANDES.—On January 5th, at her residence, 92 Newtown-road, Sydney, New South Wales, the wife of F. P. Sandes, M.B., Ch.M.—a daughter.

WAUGH.—On December 7th, at Boonah, Queensland, the wife of Henry George Waugh, M.B., C.M.—a son.

WEBB.—On December 29th, at Beeac, Victoria, the wife of A. B. Webb, M.B., Ch.B.—a daughter.

ZLOTKOWSKI.—January 7th, at Cheam, Fullerton-street, Woollahra, the wife of Dr. F. S. W. Zlotkowski, Mungindi (N.S.W.), of a daughter.

MARRIAGE.

EVANS—MONK.—On November 5th, 1902, at the Moray Place Congregational Church, Dunedin (N.Z.), by the Rev. Wm. Saunders, William Evans, F.R.C.S.E., second son of Mr. Wm. Evans, "Rhymney," Winton, to Fanny, eldest daughter of Mr. Wm. Henry Monk, Derby-road, Portsmouth, England.

DEATHS.

COPLAND.—On November 9th, at Gore (New Zealand), James Copland, M.A., M.D., Ph.D., aged 68 years.

MACSWINNEY.—On December 21st, 1902, at Mooloolna Hospital (Victoria), George Eugene, only son of Dr. MacSwinney, Chatswood, aged 28 years.

ROSS.—On December 26th, 1902, at his residence, 153 Macquarie-street North, Sydney (New South Wales), Elsey Fairfax Ross, M.D., aged 45.

STONE.—On December 29th, at 48 Alma-road, St. Kilda East, (Victoria), Constance Stone, M.D., beloved wife of Dr. D. Egryn Jones.

BOOKS RECEIVED.

A Text-Book of Diseases of the Ear for Students and Practitioners. By Professor Dr. Adam Politzer. Edited by M. J. Ballin, P.L.B., M.D., and C. L. Heller, M.D. Fourth edition. Demy 8vo. Price, 25s. London: Baillière, Tindall and Cox. Sydney: L. Bruck.

Manual of Bacteriology. By Robert Muir, M.D., F.R.C.P. Edin., and Jas. Ritchie, M.D., B.Sc. Third edition. 1902. Edinburgh and London: Young J. Pentland. Sydney: Angus and Robertson. Price, 12s 6d.

The Care of the Skin and Hair, containing Suggestions as to Diet, Clothing, Bathing, and Cosmetics. By James Startin, M.R.C.S. Eng., Senior Surgeon and Lecturer to the London Skin Hospital. Bristol: John Wright & Co. London: Simpkin, Marshall, Hamilton, Kemp & Co. Price, 2s 6d. 1902.

Selected Papers on Operative and Clinical Surgery. By the late William Stokes, M.D., M.Ch. Dublin Univ., F.R.C.S.I., Knt. Edited by William Taylor, M.B. Dublin Univ., F.R.C.S.I., with a memoir of the author by Alex. Ogston, M.D. London: Baillière, Tindall & Cox. Sydney: L. Bruck. 1902. Price, 10s.

A Manual of Surgery: For Students and Practitioners. By Wm. Rose, M.B., B.S. Lond., F.R.C.S., and Albert Carless, M.S. Lond., F.R.C.S. Fifth edition. 1902. London: Baillière, Tindall & Cox. Sydney: L. Bruck. Demy 8vo. Price, 21s net.

NOTICES.

THE "GAZETTE" IS EDITED FOR THE PROPRIETORS BY GEORGE E. RENNIE, M.D., SYDNEY, N.S.W.; AND FOR THE OTHER BRANCHES OF THE BRITISH MEDICAL ASSOCIATION BY A. B. BROCKWAY, BRISBANE, Q.; H. W. BRYANT, WILLIAMSTOWN, VIC.; H. S. NEWLAND, ADELAIDE, S.A.; HERBERT HORROCKS, PERTH, W.A.

ORIGINAL ARTICLES WILL BE INSERTED SOLELY ON CONDITION THAT THEY ARE NOT CONTRIBUTED TO ANY OTHER PERIODICAL.

All communications intended for publication may be addressed "The Editor, Australasian Medical Gazette, 121 Bathurst Street, Sydney," or to the Branch Editors for the other States. Business communications should be addressed "The Manager."

Contributors will have to pay the cost of illustrations accompanying their articles.

Digitized by Google

AUSTRALASIAN MEDICAL GAZETTE.

INSANITY IN ITS RELATIONS TO THE PRACTITIONER, THE PATIENT, AND THE STATE.

An Address

By W. Beattie-Smith, F.R.C.S. (Edin.), Retiring President of the Ballarat District Branch of the British Medical Association, Ballarat (Vic.).

INSANITY in its relations to the practitioner is of very great importance, and the deciding of what patients should be sent to asylums and what patients should not is a very special care.

What patients should be sent to nursing homes need not trouble us, as there are so few suitable, and none licensed in Victoria.

Every certificate under the Lunacy Act assumes two things — (1) that the person certified is of unsound mind, and (2) that the patient is a fit person to be detained in an asylum. A man may have peculiarities—insane peculiarities—but if they do not render him objectionable to society there can be no reason for detaining him in an asylum. Broadly, care and treatment are the objects of detention.

The granting of certificates carries responsibility, which implies the obligation on our part to know something of the manifestations of unsoundness of mind. This cannot be done without study; certificates cannot be filled in and signed without clinical research; the treatment which is requisite cannot be carried on without the knowledge necessary to inquire into a case for certification. Practitioners should aim at possessing to a satisfactory extent special clinical knowledge of mental diseases, and thus be enabled to advise their patients on matters relating to mental health and hygiene; and society demands that they should do so. The important items of the school age for children, the choice of occupation, the early recognition of mental instability, the precaution to be taken in the all-important question of home or asylum treatment, are points for the confidence of the family physician, and the grave facts of testamentary capacity and criminal responsibility have also to be dealt with. The knowledge of heredity which the family doctor becomes possessed of is highly important in this connection, for the practitioner must surely in his own interest recognise this duty to those consulting him, and so study histories past and present, and so comport himself in his professional surroundings as to gain confidence, which in many instances is excellent treatment, for you must know that in all such cases you may be called to, there will be deep distress of the relations, and that the position and character of the patient will be greatly affected.

The practitioner has exceptional opportunities and unlimited powers of influence in the field of preventive medicine as affecting mental diseases. He has for his study different persons, ages and sexes, puberty, adolescence, reproduction and climacteric, as well as the various diatheses, and all in conjunction with subjective experiences, sympathies, aversions, reflexes, impulses, altered volition.

There are many connecting links between men who are unsound of mind and men who cannot make up their minds. As an outline of the conditions of mental disorder to be dealt with, we employ the terms melancholia, mania, dementia; but the fact is that almost every typical case of acute insanity goes through all these stages or forms.

With melancholia the condition may be general or partial, and in the latter it must be remembered that while *intellectual* disorder may be limited to a few ideas, the same can hardly be said of the feelings; these are more deeply affected and yield nourishment to the delusion which is rooted in and fed by them. Psychalgia, as it has been termed, is "that form of mental depression nearest mental health," and is practically seen at the beginning of nearly all kinds of insanity, and the practitioner will do well to remember that, physiologically, the feelings reveal the nature of the individual, the functions of the intellect being to guide and control, and the consequent physiological emotional depression means a profound derangement of the individual's nature.

In examining those suffering from mental depression for treatment you must first and foremost remember that *every melancholic is a potential suicide!* Next, examine appetite, digestion, bowels, and see that he is fed carefully and not allowed to starve himself; sleep must be attended to, sometimes you will give drugs, and sometimes you will feed last thing at night and during the night. A word here as to neurasthenic hypochondriasis, a condition one hears so much of nowadays. It is a cardio-vascular complaint reacting on the nervous system, and is a painful affection of self, indicating itself in sad feelings, thoughts and conduct. There may be a good deal slightly wrong, but nothing seriously so.

As melancholia is painful self, we may regard mania as expansion or elation of self,

Digitized by Google

accompanied by changed habits and modes of life, by loss of power or self-control, by outward muscular excitement and usually insane delusions —all signs showing diseased activity of brain convolution; mania thus being *defective higher control*, exhibited differently in different people and sexes. As melancholia is to be treated from the patient's subjective point of view, mania is to be treated from our own objective. Though we find somewhat less difficulty in drawing the line between sane and pathologically insane exaltation than between sane and insane depression, many intermediate cases are met with, and for clinical purposes we have recourse to the study of varieties which are not distinct pathological conditions but merely groupings of symptoms from which we decide upon the mental state from our own objective point of view. Mania is not a sign of strength, the circulation is not good as a rule, sleep is variable, appetite is capricious, food is refused, weight is lost in spite of feeding, the delicacies of society are lost. Of hallucinations in relation to mental disorders, that sense which is most specialised and most defined is the most likely to be perverted. Hearing is exercised in the dark as well as in the light, and is, therefore, more constantly affected, and hallucinations of hearing are most common, though those of sight are very frequent.

Of the special senses there has been tabulated an ascending scale of importance :—

"*Taste* and *smell* are the least intellectual; they are not recalled in the absence of the object, though they are educable.

"*Touch* is dependent on the agency of the muscular sense.

"*Hearing* is discriminative, persistent and recallable, and is capable of education by persistence.

"*Sight* is pre-eminently object consciousness."

As to the direct examination of your patient, there are three words I would impress upon you: they are Facts, Mind, Acts—words used by Dr. Hyslop, which in their association struck me very much last year when visiting the teaching centres of the old country.

Facts are to be tested after collection from others and by yourself.

Mind: Approach your patient as a medical man called to see him. There must be no subterfuges or deceptions; approach him from a physical point of view—tongue, food, digestion, and so on, with other systems—and you will thus engage his attention, and you will remember that the mind is fed by special subjective symptoms and then you will test the symptoms *which may be true*.

As to *Acts*, the conduct generally during conversation will help you in testing alike the mind and the facts.

A further aid to the examination (also from Dr. Hyslop) is the keeping in mind of a simple but very useful diagram :—

I.—Internal	F. C.—Fundamental capacity.	
	I. D.—Inherited disposition.	
E.—External	S. E.—Social environment.	
	P. E.—Physical environment.	

In this connnection you will understand how genius is akin to madness, inasmuch as you may get poets and musicians out of strange environments, and how beliefs arise out of common everyday things, and we learn also how the special senses are frequently involved; almost it would appear in some cases "that a thread from some special sense had in passing through the brain been crystallised."

TREATMENT.—In treatment of melancholia, relatives will tell you how they have tried to rouse the patient, and stir him up, and only made him worse. Of course they did. You have no more right to treat an active mental disorder in this way than you have to stir up an inflamed joint. Sleep is got early in the night; misery, depression and suicidal inclinations come with the morning. And here you will find out is your patient really suicidal, really likely to commit or attempt it. Sometimes you will test it with an opportunity, and if you are sure you have then one duty, and that is to see that he does not do it; and this you can only best do by restraint under certificates, and in those cases we find the relatives willing "to advise you what you ought to advise them, and if any accident happens they take care you will have the blame which they will not share." They also say: "If the doctor had said he was suicidal, and therefore dangerous, and had advised us what to do, we should have followed his advice." Broadly speaking, the treatment of melancholics is by speaking fully and openly before him, as by so doing he finds his notions anticipated and wonders how we knew so much of him. Let him hear all you think of him; let him hear all you want him to do and to avoid. Take him into your confidence in order to gain his and give him infusion of hope. Give sunshine, exercise, out-of-door occupation and baths. Avoid drugs, alcohol infrequently. Do not recommend sea voyages and travel; travel *per se* is not a health restorer. Order change of air, scene and occupation within easy access of home.

In mania the treatment by non-restraint is the best, and hence home treatment is not satisfactory. The melancholic may be treated by rest, but the maniacal is not to be so dealt with, but should be allowed as much liberty as

Digitized by Google

you can give him with due regard to physical disorders. Therefore, they should have moderately strong clothes, or very strong clothes on which at times even they may be unable to take off. Some asylum authorities are very proud of having no restraint, no seclusion, and no strong clothes; but they have manual control, an attendant or nurse on each side holding the patient. Now, I can only consider such forcible manual repression as irritating and risky to all concerned, and whilst I say this, and act upon it, I at the same time affirm that that hospital for acute cases where the least restraint is exercised has the best staff and best controlled supervision of that staff, and that moderate restraint is better than seclusion. So far as associates are concerned, the incurable is frequently a better companion for the curable than the curable.

Of "INSANITY ASSOCIATED WITH ORGANISED DELUSION" the practitioner has much to do.

In mania we note general exaltation and the consequent freedom of action. In melancholia we have painful feelings with depression and restricted activity. Now, in delusional insanity we have an emotional indifferentism with false beliefs of an exalted stamp, which, however, readily passes into transient excitement, or perhaps gloomy despondency, time being required for the frequent repetitions of the same impression or the persistence of the same impression to fix the delusion. It must always be borne in mind that a maniacal patient is not at all times restless, nor need he be talkative or gesticulating, but his *expression* indicates to us his varying moods and rapid incoherence of thought.

THE INCIDENCE OF DELUSIONS. There is scarcely any limit to the disorder that may occur in relation to hallucinations and delusions. You may have a delusion as the outcome of hallucinations; you may have delusions as the outcome of an illusion; you may have a delusion merely as a misinterpretation of real actual perceptions: thus a person in absolute stillness hears voices and sounds; another sees lights and faces, even an absolute darkness; while a further person smells a bad smell in a perfectly pure atmosphere. Some defect of smell may lead to misinterpretation of existing smells—misinterpretation of real, actual perception, and so also the interpretation of skin irritation and bad taste, leads to delusions of electric shocks and ideas of poisoning.

Superstitions are examples of *sane delusions* through lack of training or knowledge, or want of power of judgment, and are not the outcome of diseased perversion. *Temporary delusions* are easily roused by religious fervour, either outwardly or by contemplation, and such people see visions and hear voices. By reason of some bodily ailment false sense perceptions or beliefs are of a dangerous variety and lead to the need of asylum control. *Insane delusions* are those which "affect the conduct either through deficiency or disease," and the usual run of cases are those of unreal greatness, unfounded suspicion, unseen agency. Delusions are always of clinical value and are considered of prime importance by the lawyer—hence while giving evidence in courts of law you always bring them in. Yet, remember there are people who do their work well in the world, though they labour under delusions; and this is a matter of importance in judging of testamentary capacity, some men being held to be sane in everything except will making. Some again may hold high positions and carry out their duties and professions accurately, and yet be dangerous to their relatives through delusions.

In the treatment of such cases REMEMBER YOU ARE NOT TREATING MANIA BUT A MANIACAL PERSON.

First, have all your tests made, and recollect FACTS, MIND, ACTS, and here also conduct, remembering that you are dealing with your own objectives. If possible you will urge change of air, scene, occupation, company, and while this is being done carry on constitutional treatment, dealing with symptoms as they arise, and applying yourself to existing diatheses, and, above all, aim at removing objects or bodily causes of convolutional disturbance. Here, again, I would warn you against advising travel, as, *per se*, it is not a health restorer. In the majority of cases, however, either from want of means or unsuitability, such treatment cannot or ought not to be carried out, and then a well-conducted asylum must be looked for, that is, a patient may not have the means, or even should he have abundance, institutional control is more frequently indicated than not, and certainly for all confirmed cases the asylum becomes the place for care and treatment.

As to the occurrence of organic delusional insanity, we find it most in those of an insane stock, but you meet with it in alcoholics. Alcohol induces central trouble—brain and cord—as well as peripheral changes, so that you may get ideas of persecution from peripheral neuritis and delusion of shocks and poisoning from gastric troubles; and I may advise you from long experience to be careful to exclude alcoholism before giving an absolutely bad prognosis. I would once more revert to our diagram, and remind you that organised instability of centres is one thing, and environmental conditions self-induced or

Digitized by Google

wilfully exposed to in defiance of physiological dictates is another thing, and that insanity may be acquired *ab extra*.

Of the states of ALTERNATING DEPRESSION AND EXALTATION you have recurring insanity and circular insanity. "Mental life is one long alternation of action and reaction." "Mental activities are influenced by physiological periodicities." "All forms are prone to recur whether from inherited neurotic tendency, acquired vices, or physical ailment, and the predisposition is intensified by the occurrence of an attack, and the cortical changes which account for insanities even in the best of recoveries tend to hyper-sensitiveness and recurrence." A large number of such cases pass their lives between the asylum and their homes. The existence is a miserable one, and the main thing to contrive is that they shall have as much of their time at home as possible, and as little in the asylum. These are the cases we get in adult life, and they increase towards the decline of manhood and womanhood, and in them we find mental activities strongly influenced by physiological periodicities. We also find recurrent insanity embracing a large proportion of the persons dangerous to the community through vicious habits and alcoholic excesses with morbid impulsiveness; and though their acts of violence may not be attended by any unconsciousness, they seem scarcely to be voluntary. Hallucinations are common in such cases. They are chiefly aural and visual, and they are the proximate causes of the recurrent attacks. Such cases become chronic as a rule, but partial recoveries occur. Morbid tendencies become established, the intervals between attacks shorten, and the impulses require constant supervision, and really when the periods of calm are uncertain we are glad when dementia deepens, though even then you have alternations.

CIRCULAR INSANITY is that condition where "melancholia and mania, or the reverse, follow each other in invariable sequence with or without a shorter or longer lucid interval." Between the attacks you may have a period of calm and apparent stability, but here we have a real danger of mistaking recovery for a transitional phase. Sometimes the cycles are continuous. The incurable nature and strong hereditary basis prevails, it is found more frequently in women than in men. Puberty and early womanhood are the commonest ages, and the neurotic heritage of epilepsy, alcoholism, chorea, and hysteria are constant antecedents.

As to treatment, alcohol in any form is pernicious in explosive neuroses. It is wise to depend on outdoor exercise, manual labour, cheerful society, liberal and wholesome dietary, which should be largely farinaceous, and with strict limitations of animal food; bromides in full doses (either with or without tonics), laxatives, spinal douches, and friction.

Of the STATE OF MENTAL ENFEEBLEMENT you have secondary or ordinary dementia—primary enfeeblement, senile dementia, organic dementia, alcoholic dementia. Up to this point we have been dealing with mental pain and defective control. We now have the clinical subject, DEFECTIVE POWER: with primary enfeeblement considered as congenital or developmental arrest I shall not deal.

THE DEMENTIAS comprise in their different groups a large bulk of cases to be treated, and here pathology has some approach to definiteness. Commonly we have vascular disease, atheroma, localised softenings, embolism, slow starvation of areas of brain tissue—sometimes atrophy and wasting.

THE SECONDARY ORDINARY OR SEQUENTIAL DEMENTIA is the goal of chronic insanities if death do not occur. The risk is in direct ratio to the length of the maniacal exaltation, but not so if sequential to melancholic depression, which is not so damaging to convolutional function. Pathologically considered, we have in such cases a "weakened trophic functional state of a delicate cortex commonly following morbid over action and consistent with long life." Such cases may occur at an early age in brains whose stock of force is exhausted in a few years instead of being able to last the lifetime of the body; and here we have a "postponed idiotcy" inevitable from the beginning, but you must not confuse this with the exhaustion and reaction following acute illness, since however closely it resembles dementia it is recoverable. It is a period of "functional rest and trophic activity" highly important for treatment. You have a lowered devitalised brain requiring strychnine and phosphates, with baths and friction, the endeavour being "to fill up the cistern of nerve power and to so watch as to carefully break down adhesions."

SENILE INSANITY, broadly considered, is found in the restless, sleepless, old person, without memory or true effectiveness, and without clear articulate speech—a second childhood, it may be, with fair bodily health and cheerful forgetful enfeeblement, with some arterial degeneration. Many have hallucinations of hearing and hold conversations with people not present; morbid eroticism and physiological immorality may develop, and the senile suspicions usually refer to things very likely or possible to happen, such as stealing, faithlessness on the part of relations, and not

Digitized by Google

to the impossible or false beliefs. Those cases come largely within the scope of the practitioner, and should be met with a good nurse (who should be a relative if possible), routine management, diet, and exercise. One's feelings go against asylum treatment if there be a good home and dutiful relatives; but if there is poverty and inconvenience, however dutiful the relatives, then the asylum at once. Asylum physicians see only the black side of this ailment. The shadows of declining life are for the general practitioner to study, and he must not disregard such cases, as he is very potent for good, and must be watchful of his patient in his capacity for will-making and of the carrying out of his orders by the relatives, particularly as to opiates or alcohol.

Organic Dementia or Paralytic Insanity is typically a dementia or enfeeblement added to some sort of motor paralysis, and it is only the very dirty and troublesome which need reach an asylum. They may be treated at home or in private hospitals.

Alcoholic Insanity.—"Alcohol is the most common cause of insanity either producing it or bringing into activity hereditary or acquired brain weakness." As a cause it is not followed by constant results. Depression, exaltation, or enfeeblement may arise, and general paralysis, epileptic insanity, adolescent insanity, together with that of the climacteric, and senility may have alcohol as an exciting cause. Under this heading we have *delirium tremens* a typically excited motor melancholia with hallucinations, suicidal tendencies, confusion and perhaps unconsciousness, and you also have motor restlessness, tremulousness, paralysis of food appetite, digestive disorders and sleeplessness. We have chronic alcoholism, the result of long soaking and sober intervals, and with the symptoms only less acute of the former variety. In mania *a Potu* you have brain weakness from the first; a craving for nerve stimulants and sedatives as well as alcohol. As to causation we have heredity, excessive use in youth, nervous temperament, head injuries, convalescence from debilitating disease (and here let me warn you to be careful how you continue stimulants and narcotics beyond the period where actual need ceases), exciting occupations, and the want of normal stimulants such as amusements and family life. The recurrences in alternating insanity and senile degenerations also lead up to this state. Of the toxines in general, the same history may be given, and the title narcomania is applied to the many forms of this wretched condition. In the immediate treatment of all acute conditions have no hesitation in the total withdrawal of all the alcohol—there is no danger—and you ought not to temporise; cutting off liquor gradually has great disadvantages. Bromide of potassium is regarded as the mainstay from its general calmative effect, and on this Dr. Norton Manning writes: "It produces peripheral sedation, and reduces muscular irritability; it wards off the tendency to epileptiform convulsions, and relieves the distressing vomiting which interferes with the taking of the necessary amount of food. Give bromide, therefore, in drachm doses every four hours till good sleep results, and watch the urine, giving diuretics when indicated. You will also feed."

In the Ultimate Treatment you will find odd cases of success in all forms of treatment; but the treatment of the confirmed inebriate has been largely a failure, and in spite of care, time and money spent, the inebriate pursues his downward course. The lunatic asylum is indeed the most successful, when the symptoms justify the certificates, because you give a good moral shock to the individual, who recognises his position and his prospects, and that he is in compulsory confinement under rigid *regimen*, though for too short a period.

Then as to the Mismanagement of Drunkards, much has been well said against the methods adopted by the sentimentalists and their mischievous views. Compulsory detention for long periods, with moral and physical discipline, must be adopted. "All the pity in the world will never conquer weak will, selfish desires, dishonesty and moral perversion: they should be held to be responsible like others, or shut up and treated properly till they become so."

In the drug habit, or narcomania, you will carry out the same lines, rapid withdrawal being more satisfactory than progressive reduction.

Of general paralysis of the insane it is not easy to give a comprehensive view, as authorities differ in their views of the supposed varieties. The progressive impairment of the elaborated motor-mechanism and mental states comprise the characteristic feature of the disease. In the earlier stages the practitioner must be on the alert, for the symptoms are apparently trivial in themselves; the irritability, perverseness, intolerance and waywardness exhibited in those previously self-controlled and considerate indicate the change in disposition which is signalised by the perversion of some moral sentiment, a fact of medico-legal importance. The moral lapses are neither premeditated nor impulsive; they are casual and significant of clouded intellect, implying failure of attention and an impressionable vaso-motor system in which we find palpitations alternating with

Digitized by Google

flushings and pallor and complaints of headaches. When the second stage is entered upon, the motor troubles are so pronounced as to make diagnosis easy. As to the nature of this disease, there can be no doubt that "the grey matter of the convolutions is the highest in quality of function of all known organic products, and it reaches its highest development between adolescence and middle life." Its uses are called forth chiefly in residents of towns. Its abuses are alcoholic and other toxic states, over-strain, over-stimulation, or mental exhaustion from continuous anxious work; and as we assume that nerve tissue degenerates in the line of physiological activity, we find that general parlysis is a quick and special pathological degeration of a progressive nature.

As to causation, authorities are agreed that "there is sufficient evidence that syphilis is a potent predisposing cause of general paralysis, though considering the frequency of the one disease and the comparative rarity of the other it is clear some peculiar concatenation of influences is needed to so dreadful a result." Of recent years men in the asylum world at Home are developing the theory that general paralysis is the result of a toxin and that the initial lesion is a bacillus in the colon, and much excellent research is being made into this matter (the development of which may be of use in treatment) by Dr. Mott, of the London County Council Asylums Laboratory; Dr. Forde Robertson, of the Scottish Asylums Laboratory; and by Dr. Lewis C. Bruce, of the Perth District Asylum.

The periods of physiological life, with their prevailing brain activity, have their corresponding psychological disturbances. The developmental evolution of the faculties does not take place without the risks of disturbance to mental functions. Puberty, which is the era following birth and ranges from 13 to 15 years of age in the males and from 14 to 16 in females, and adolescence ranging thence on to perhaps 25 years, are each very important to the general practitioner. In them the mental differences exceed the bodily contrasts, and at this period ancestral influences come into play, even it is said the "inherited acquired peculiarities." Fortunately, however, the tendency to the normal would appear to be stronger than the abnormal bias, so that if the conditions are good the potential may not become the actual. The mental derangement in the girl being the expression of a process related to ovario-uterine excitation, catamenial periods must be watched with regard to irregularity, suppression, or anæmia. The return of the flow does not in itself reinstate the brain. It is the improved condition of the blood bringing up the nutrition of the brain. Development at this period is strongly affected by environment: employment, social influences, and educational advantages as greatly affect the growth of the mind as they do that of the body. The conditions of the poor in their struggle for existence, with unhealthy occupations and vicious surroundings, undermine the physique, check expansion, cramp energy, and afford no proper food for mental life. In the boy the activities are most apparent and obtrusive, and the sexual instincts are earlier aroused; his newly-awakened faculties easily exaggerate his abilities; plots and schemes are projected, but all his actions are disproportionate, and here manly sports come in to balance the faults of emotional states and prevent introspection.

With the boy you have yearnings, passions, inventive ingenuity, antagonisms; with the girl you have vague, half-understood promptings, sympathies, generosity, subjectivity: as Bevan Lewis says, "the girl displays recipiency, the boy projectivity."

Puberty, then, is the first really dangerous period of life in the occurrence of insanity, and all its manifestations are intensified at the further period of adolescence, and all treatment must be based on physiological considerations. You will advise active, open air exercises and athletic games for both sexes; morning shower bath; simple diet of milk, fish, fowl, eggs, no stimulants; tonics; codliver oil. Much flesh eating, which induces masturbation, and tobacco should be avoided.

To continue the epochal method of considering disease the practitioner is only too frequently called to treat puerperal insanity, and here we definitely recognise a special liability in some to break down at certain periods—viz., pregnancy, parturition, and lactation—conditions requiring clinical classification, as in them we know the beginnings of the case, and "to know that you have a case after recent childbirth is to know far more about it for treatment and prognosis than merely to know you have a mania or a melancholia."

The insanity of pregnancy seldom reaches the asylum, and needs the careful study of the practitioner, particularly in regard to morbid cravings, emotional and moral perversions, which are sometimes excused as common to the physiological state, and you must trace the development from the natural to the morbid. Suspicions and delusions of persecution arise; there are imaginary dreads and jealousies; there may be avoidance of food, the morning sickness being misinterpreted, owing to beliefs of poisoning, and there is a watchful cunning, with accusations, and impulses to suicide. We must not attribute too much to heredity; we

Digitized by Google

must look to *expectancy*, for as in suicides we find people impelled to the deed by the knowledge of the fact that under similar morbid conditions a parent so killed himself, so with a young woman who marries and for the whole of her pregnancy wonders whether she will break down and be like her mother. Expectancy prepares the way for a breakdown; inheritance has influence by providing an unstable person and by giving a cause for expectancy.

Unphysiological pregnancies—that is, pregnancies at advanced ages—are also causes. In all such cases, if the patient aborts, the chances are that the mental disorder goes on for a time, and if this be so naturally it cannot be regarded as legitimate treatment to induce abortion in these cases. Home treatment in such cases is to be carried out if at all possible. Good nursing, society, general attention to diet and *regimen*, and an avoidance of sedatives are the indications, but when the hallucinations come to be acted upon, and attempts at suicide are made, then treatment by certificates is demanded. The ordinary so-called puerperal insanity—that is, the insanity of parturition—refers to all cases coming on within six weeks of delivery, and here the practitioner has an anxious time owing to the absolute sleeplessness, irritability and antagonism of the patient. In these cases you have a very typical course "to know the beginnings is practically to know the treatment and prognosis." First you have the melancholic stage, and sometimes there may only be depression. Next you have excitement, with increase of temperature if there be septic trouble, but not otherwise, and should there be septic trouble you will find other bodily symptoms. Then comes the period of exhaustion, so that you observe the three forms of mental disorder—melancholic, mania, and dementia—represented in one case. Fears of poisoning and refusal of food are common, and jealousies and suspicions of infidelity of the husband are painful accompaniments. Distrust and suspicion practically represent the condition, and voices or delusional promptings account for the tendency to the murder of the father and child and the suicide of the mother. The very smallest sign is picked up by the patient, so care must be taken in speaking in the patient's presence. If you don't want the patient to hear don't speak in her presence, and if you do speak in her presence, speak, and don't whisper.

Home treatment in such cases is very desirable if it can be carried out in its entirety. Delayed treatment means prolonged recovery. As 25 per cent. are actively suicidal, and, perhaps, 50 per cent. impulsively dangerous to others, the fullest treatment is demanded at the hands of the practitioner, and that, too, with the confidence in early treatment that quite half the cases recover in four months, and thence onward to the ninth month, with a few recoveries even as late as a couple of years, till 75 per cent. have recovered. The home treatment should be the same as the institutional treatment; the genito-urinary system must be attended to, saline aperients are useful invariably, the breasts require attention; full, frequent, and if necessary forcible feeding from the start, stimulants of which stout is the best in large doses, as well as milk, eggs and jellies are indicated. Amongst sedatives I would strongly dissuade you from the use of opiates; chloral is the best. Paraldehyde is useful, but nasty smelling; sulphonal is not efficacious. Rest in bed till excitement abates is a safe rule, then short walks and perhaps massage. As to recovery, one must bear in mind that no case is really recovered till menstruation is regular, and to this end aloes and iron with hip baths are useful. Menstruation before a return to general strength is not desirable, as it may be attended by increased mental disturbance, and perhaps menorrhagia.

In all such cases, should there have been asylum treatment, when it is found that the physical state has been restored, but the mental does not work so well (and some are always crippled mentally), they should be sent out unless actively dangerous or suicidal. The restoration to home surroundings shakes up the machinery, gets rid of weak-minded adhesions, and sets the mind going normally. Asylum adhesions must be broken down, and the sooner a fair risk can be run the better, and the patient restored to the practitioner.

As this subject is not complete without a word on the lactational variety, we find it, too, demands attention from its physiological susceptibilities, and that with the return of uterine involution the mammary secretion is of increasing importance; hence, after from six weeks to three months we have the period when we give this title to a condition in which we have an acute nerve storm with visual and aural delusions, fears, suspicions, loss of self-confidence (with its accompanying ideas of the future being sacrificed, the soul lost and crimes committed), as well as dreads, intrigues, poisoned food and dangerous impulses.

This condition is one of brain exhaustion, and perhaps the term "neurasthenia" describes it better than any other to which it may be applied, and in it you have household duties done without interest, sympathy and affection; sleep may be deep, food may be taken sufficiently, but neither are satisfactory; functions

Digitized by Google

may appear normal, but with amenorrhœa. The complete return of feeling comes with menstruation. The same generous treatment is indicated here as with the former variety. A point I have forgotten till now is one which may have occurred to you, and that is that you frequently have with the onset of milk a form of ephemeral mania, a febrile attack, in which you can dissipate the fears by a free saline purge without giving over the *kudos* to any consultant.

To conclude the consideration of this group of cases of such great importance to the practitioner, I would only repeat that just as an individual runs a risk by the knowledge of her mother having suffered, so a woman who has suffered once is liable to another attack because she thinks of the past *and has expectancy*. Memories, however, wear out, and if your advice in these cases where you have said "There must be no more babies" shall have been paid heed to for three or four years, you may be justified in saying: "I think you may encourage your wife to believe she will not break down again"; and, above all things, in your practices, for your own sakes and under all circumstances, only induce premature labour on written consent and after consultation.

In connection with treatment in general, the practitioner must pay special heed to the necessity for early advice in the chief forms of disorder as well as the ephemeral varieties; and on this subject much discussion is now taking place in the old country. The rich have their opportunities, but the whole trend of preventive medicine is to provide for the poor the same treatment that the rich can pay for. Whether a hospital ward, an out-patient department or an intermediate hospital, or possibly both the latter, is the best means, remains to be seen, but much urgency exists for some such institution. As Dr. Clouston remarks, "An extension of the present asylum accommodation cannot fulfil this purpose because it *is* asylum accommodation, and therefore has attached to it the unfortunate and cruel prejudices and repulsions which would prevent patients from voluntarily taking advantage of it when they need it most and when it would do them most good. Many mental cases, too, are certifiable which should not be certified, and still more are not certifiable and yet need definite treatment."

And now, gentlemen, I fear that even without having touched on the epilepsies and impulses generally, I have sufficiently wearied you, and will pass on to the further emphasising of the need for home care at the hands of the practitioner by next dealing with the subject of the housing of the insane. Here we are met by the fact that as there are no licensed houses for private cases the Parliament of Victoria constitutes all under certificates wards of the State, and compels them to live in a State institution provided with far too little and meagre accommodation. There is much to be said in favour of licensed houses under proper supervision and inspection, but much has been done in England and Scotland to show that in public institutions the better classes are more and more being treated in separate blocks and villas under the same management as the bulk of the patients, and paying large sums for maintenance. In saying the better classes I fear I am committing an error. I should have said the monied classes, because in many instances the older buildings are being altered to so suit a very deserving portion of the better class who cannot afford higher rates, and yet are provided with that privacy and attention which their conditions demand.

Now let us ask ourselves how does the State of Victoria provide for those they will not license others to care for? And the answer is *this State does not fulfil its duties to the practitioner and the patient*. So-called lunacy reform has been a catch cry of past and present Governments, and has borne no fruit. What we want is *not lunacy reform but progress in treatment* on lines which the medical staff has long advocated. First as to buildings, though our asylums are not as they would be if erected to-day, they are all capable of improvement and alteration by an intelligent medical head and an architect willing to reside at the asylum for a time and accompany the medical superintendent in his daily round of difficulties. I state this of the district asylums in general, and would personally speak of my old asylum at Ararat, which grew up round about me during my 12 years' superintendency, and which by fighting and waiting and fighting again for money, and the architect's kind attentions to my wants, became for the class of cases admitted an institution to be satisfied with and to nurse for further advances in treatment. Of the city asylums, I shall deal only with Kew, which I took charge of four years ago. This asylum is of ancient type, but could be rearranged at some cost as to money and numbers, and should be made the acute hospital, with all the structural advances of recent years applied to treatment. At present these wants are not supplied. The institution is cruelly overcrowded and has been starved for years, and but for individual care bestowed on asylum labour would not have presented the appearance it did when I left it. One would have liked the opportunity

Digitized by Google

of trailing an architect about and scheming for the welfare of one's community.

As to the so-called pay-asylums,—a horribly bad name, as if the Government did not get as much as it could for maintenance, place it to the consolidated revenue and plead want of funds even for urgent sanitary arrangements,—for those who can be paid for in institutions at higher rates the clear duty of the Government is either to provide or license such, for I feel sure much harm is done from want of early treatment, and here the profession should speak with no uncertain voice. The nursing staff which the State provides has markedly improved of recent years, and it has been a pleasure to labour at the benefits to be gained by such an advance, and yet there has been a corresponding sorrow in that not all have entered thoroughly into the training system, and that when the examination results are arrived at for confirmation of appointment of probationers, the year's work has been set aside, and even those who have failed a third time retained. The grading of the staffs as a whole is not beneficial to the interests of the patients. Each superintendent should train, retain. and finally deal with his own staff as to their relative fitness. The possibility of an attendant or nurse from one asylum coming on promotion to a charge position at another, when you already have a man or nurse who you have been training up to succeed in that position, is not what ought to be. The nursing staff is not complete enough, many patients drifting from want of individual care and sufficiently continuous supervision. What is wanted is a lady as matron who should be a trained nurse, a deputy matron or housekeeper, sectional ward sisters, and the ordinary staff of charge and junior nurses; and on the male side a chief attendant and assistant or ward inspector, together with charge and junior attendants. Each night staff should be complete in itself and be no drain on the day staff. My experience of the staffs generally has been that when you have well-trained charges you may inculcate true nursing methods, but without these even those instinctively inclined to the work cannot do either themselves credit or the patients full justice.

Nursing of males by females is a matter of present importance, and is engaging the attention of home asylum physicians, the lead having been given some years ago by the Scotch authorities. A big commencement has been made in one of the New South Wales asylums which I recently specially visited, and all credit is due to those concerned. Of the attempts to introduce the system into Victoria I heartily approve, and quite think, with proper management and regulation, much good could be achieved in all our country asylums where the class of cases is eminently suitable.

Does the medical staff do enough medical work? is a question that must be faced, and I unhesitatingly say enough medical work is not done. The pressure on a small staff, and a changing staff too, prevents good work; there are too many cases to be kept up. What we want for buildings, and what we want for the nursing staff, we also want for the medical staff, and that is an *extension of hospital methods to asylum practice;* and for Kew as a large receiving asylum I have recommended the appointment, for short periods, of two young graduates as house physicians, one to assist each of the resident medical officers, and the duties of the whole so arranged by the medical superintendent, under regulation, as to keep both himself and them fully occupied. If we are to progress we must have equipment all round, and how is that equipment to be governed centrally at headquarters? As a lunatic asylum is a very special kind of hospital in which the whole administration is treatment and therefore medical, it is wonderful that as much *has* been done, considering the difficulties that have beset superintendents in this State, and it is only the untiring enthusiasm and devotion to duty of some, alike professional, nursing and lay officers, that have at all kept up individual institutions. What is wanted in this State is a small commission of three—a medical man, a Master-in-Lunacy and a business man—and there need be no further cost to the State Let them have the administration, and be generally responsible to the people through Parliament; let them be beyond the realms of politics; let each superintendent under them be responsible for his own asylum, give him the reins, hold him strictly responsible, and get rid of him if he does not do his work, remembering that by so much as you curtail his authority under the governing power you reduce by so much his responsibility.

Finally, I would add that in the stating of my opinions I have been guided by reading, by my experiences over nearly 21 years in the service of this State, and by my labours in England, Scotland and the Continent whilst visiting my friends in the asylum world there, and I am convinced, first, that that asylum which is a teaching centre has its patients best studied; next, that a teaching centre is absolutely necessary to complete the medical curriculum. The appointment of temporary medical officers in the persons of young and enthusiastic graduates, full of hospital methods, from amongst my own students has abundantly satisfied me as to the correctness of my contention as to the best

Digitized by Google

medical equipment of a large hospital for acute cases. Of course, no large group of asylums such as ours can be considered fully equipped without a special pathologist and laboratory.

Since this address was typed much interesting correspondence has reached us through the *Journal of Mental Science*, the *British Medical Journal*, and the *Lancet*, an excellent address having been delivered by Sir William Gowers before the Medico-Psychological Society on "Lunacy and the Law," and the subsequent discussion disclosed the consensus of opinion to be that the sooner the Scotch plan was adopted in England the better; and for ourselves here I would say the sooner the powers that be request the best Scotchman to come out and go thoroughly into our system of certifying, receiving, housing and treating persons of unsound mind, the better it will be for the credit of this State. Too much weakness in administration has been shown; too much giving way and sheltering under reports; too much contentment with the expression, "it will last my time." Superintendents and medical officers should be of the best. They should be well paid, and their tenure of office should be limited to their capacity for continuing good progressive work.

TYPHOID IN HOBART AND MELBOURNE, AND THE INFLUENCE OF DRAINAGE ON ITS PREVALENCE.

By James Jamieson, M.D., Health Officer City of Melbourne.

At the meeting of the Intercolonial Medical Congress at Melbourne, in 1889, the subject of typhoid was largely considered, and was adopted as the matter of discussion at one of the general meetings. At the end of that discussion a series of resolutions were proposed and carried unanimously. The first affirmed: "That the prevalence of typhoid is owing mainly to insanitary conditions, and above all to contaminated water supply, defective drainage, and improper disposal of nightsoil." By the second it was declared: "That while there is reason to believe that the sources of the water supply of Melbourne are carefully guarded, it is certain that, as regards drainage and nightsoil disposal, the arrangements are very unsatisfactory, and to these defects must be ascribed in great measure the excessive prevalence of typhoid fever year after year." By the third it was affirmed: "That in the opinion of this Congress, it is the imperative duty of the Government to take immediate steps for bringing about an improvement in the sanitary condition of Melbourne, and specifically for the construction of a proper system of underground drainage, which shall include the removal of nightsoil by water carriage."

Though these resolutions had properly enough special application to Melbourne, the affirmations were equally true of other places where conditions at all similar prevailed. The late Dr. Richard Bright, who took part in the discussion, and seconded the last of the resolutions, declared in a very positive way his belief that the excessive prevalence of typhoid in Hobart, in the years just preceding the meeting of the Congress, was greatly owing to the pan system.

The resolutions took the shape they did very largely to strengthen the hands of the medical profession in Melbourne in their struggle for sanitary reform. It may be assumed that their unanimous adoption and vigorous wording had the effect intended, since the Government soon after engaged the services of an eminent London engineer to report on the best method for carrying out a scheme of underground drainage. In 1890 that report was received, and a Metropolitan Board of Works constituted, with control of water supply and drainage. With some modifications the proposed plans were adopted, though for several years progress seemed to be slow.

About five years ago house connections began to be made, and now (August, 1902) 48,000 buildings, out of about 100,000, have been connected with the sewers, and the pan system abolished, so far at least as concerns these places. Of course very much remains to be done, and, as was proper, the central and more populous districts, and the suburbs on the line of the outfall drain, were the first to benefit. Clearly the full advantages from the point of view of sanitation are far from being attained, but it may be possible to show that they are considerable.

It might have been expected that an enlightened self-interest would have led the citizens of Hobart, as a place of summer resort, to realise the enormous benefits any such place must derive from a good sanitary reputation. And there is nothing more likely than a fear of typhoid to check the influx of visitors. Without throwing doubt at all on the attractions of Hobart, both as a beauty spot and a good health resort, it must be admitted that up till quite recent times it shared the evil fame of Melbourne as a hot-bed of fever. And a comparison of the mortality returns brings out some striking points of similarity between the two cities. Taking the period since 1890, such a comparison brings out the very striking fact

Digitized by Google

that the specially fatal years in both places were 1890-91 and 1898; and the year between these, showing the lowest typhoid mortality, was also the same, viz., 1893.

The concomitant variations are much too striking to admit of explanation by the easy way of "accidental coincidence." They strongly confirm the opinion, which I have long held and frequently expressed, that general conditions of the meteorological kind have much to do in determining the fluctuations of typhoid prevalence in particular localities from year to year. I must admit further that my endeavours to fix the exact nature of these meteorological, so-called cosmic, conditions have been attended with rather a scant measure of success (*vide* proceedings of the Australasian Association for the Advancement of Science, Vol. II., Melbourne, 1890, and *Australian Medical Journal*, March, 1890). And, indeed, looking at the enormous fluctuations in the typhoid mortality year by year, and in almost a parallel way in the two cities, it might seem as if they had been left at the mercy of these general conditions up till quite recent times.

But knowledge has grown, and from application of that knowledge improvements of many kinds have resulted. And just as the fatality from consumption was steadily becoming less in most countries, independently of any recognition of its infectious character, and without much in the way of special precautions, so with typhoid the death rate has been undergoing diminution, even though certain essential improvements may not have been adopted.

In a paper read before the Royal Society of Tasmania by Dr. Gregory Sprott in August, 1898, the argument in favour of the adoption of a proper drainage scheme was put in a very forcible manner. At that time both Hobart and Melbourne showed very unfavourably in the comparison of mortality rates, not only with European conditions, but even with Sydney. Since then there has been a great change for the better, and for several years it has been a pleasure to me to be able to point out that the deaths from typhoid in Melbourne had at last been reduced to such an extent, that the mortality compared favourably with that of the great English towns. And comparatively low as the rate now is, there is every reason to hope, from analogy of what has happened elsewhere, and notably in some of the German cities, that the lowest point has not yet been reached.

In presenting, in tabular form, the death rates from typhoid for a series of years in Hobart and Melbourne, it is not necessary to go further back than 1890, as by the help of these figures we can make comparison of periods for which reliable census figures of population are available. Calculations based on estimates are apt at times to be fallacious, and especially in our case, where census periods are as long as ten years apart.

The following table gives a comparison of the rate of mortality from typhoid, in Hobart and in Melbourne, for the 12 years 1890-1901:

PER 10,000 OF POPULATION.

	Hobart.	Melbourne.
1890	5·1	8·5
1891	16·7	3·9
1892	5·7	3·2
1893	2·5	2·6
1894	4·8	3·5
1895	5·8	3·2
1896	4·	3·3
1897	3·4	2·6
1898	8·1	4·7
1899	1·6 (? 2·)	2·9
1900	1·6 (? 2·)	1·9
1901	2·	1·4

The rates for Hobart are taken from the reports of the health officer, and as regards at least the years 1899-1900, they almost certainly require correction, since the population had been overestimated by almost 6000, implying an addition to the rate of about one-fourth, and making it more probably 2· than 1·6, as given in the table. On the other hand the census returns showed that the estimates of population for Melbourne had been a close approximation to the true numbers. On analysing the figures given, the first thing at once noticeable is the great decline in the mortality rate in both cities in the three last years of the period. Another is that the fluctuations from year to year are much greater in Hobart than in Melbourne, owing, of course, to the smallness of the population not allowing of a correct average being easily got. But it has further to be noted that with all the fluctuations the rate for Hobart has never come so low as that which has been found in Melbourne for the last two years, and notably in 1901. It is manifest, from the fact that the mortality has been so much below the average in both places, that general conditions have on the whole been favourable during the last three years. The improvement in the typhoid mortality rate has doubtless been in great measure owing to advances in sanitation, better guarding of milk and water supplies, better cleansing of streets, lanes, and house surroundings, more care in the disinfection and ultimate disposal of night-soil, and possibly other things not so obvious. But things being equal in all these respects, it might fairly have been expected that in Hobart the swing of the pendulum would have been more distinct with the small population

Digitized by Google

than in Melbourne with the large. It might have been expected that in one or other of these favourable years the rate would by chance have fallen lower than in Melbourne, just as it was lower in 1893, than in any of the earlier years of the period, and far higher in 1891 and 1898 than at any time in the period. Many conditions being the same in both places, it seems as if there had been something at work in Melbourne of a special kind not operative in the Tasmanian capital. It is not easy to think of anything greatly different in the two places but the drainage system adopted in the one and not in the other. Things being equal the mortality ought to be lower in Hobart, with its excellent undulating site, and its comparatively small and scattered population.

It is worth making a further comparison, viz., between Melbourne and the rest of Victoria, to see whether it favours this view:

PER 10,000 OF POPULATION.

	Melbourne.	Rest of Victoria.
1890	8·5	3·2
1891	3·9	2·5
1892	3·2	2·2
1893	2·6	1·9
1894	3·5	3·
1895	3·2	1·9
1896	3·3	2·3
1897	2·6	2·
1898	4·7	4·7
1899	2·9	2·9
1900	1·9	2·
1901	1·4	1·78

Here we have in some respects the same thing seen as in the previous table. With a large population scattered over a large area, the fluctuations, of course, are not nearly so great as those shown for Hobart. But what is also apparent is that, while on the whole the mortality has been lower in Extra Metropolitan Victoria than in the metropolis, this has now ceased to be the case. Something has happened in the last two or three years in Melbourne to make the rate lower than in the rest of the State, though the same thing had never happened in any other year of the period.

To the casual observer the differences just pointed out may seem trifling, but in a place like Melbourne, with a population of about half a million, a lowering of a death rate by even 1 in 10,000 of population represents 50 lives saved annually, and these in turn may represent about 500 fewer cases of typhoid. The value of 50 lives of persons in the prime of life, as most typhoid patients are, and the cost of 500 cases of tedious illness, are not matters which can be dismissed as trifles. By themselves, in fact, they make, in their saving, a considerable offset against the expense of sewerage; and when to these savings there is added the comfort, almost the luxury, of living in a sewered house, as compared with another in which the night pan is ever apt to reveal its offensive presence, and where foul water of every kind has to trickle along from house drains to the right-of-way and street, it may well be a question whether the offset is not a full one. It will be for the people of Hobart, who have much to gain in the reputation of their city as a health resort, in addition to the savings and gains just mentioned, to decide whether it is not a grievous mistake to allow present conditions to continue longer than is absolutely necessary. I do not wish to refer specifically to other sanitary defects which reveal themselves easily to the trained, perhaps even to the untrained, observer. Many of them would disappear with the completion of a proper system of drainage. With these improvements accomplished, Hobart should be second to no other place in the Australian Commonwealth as a health resort; and it is hardly stretching prophecy too far to express the conviction that, among the benefits obtained, there would be complete, or almost complete, immunity from outbreaks of typhoid.

(Read before the Royal Society of Tasmania.)

THE SPREAD OF TYPHOID FEVER.

By Duncan Turner, M.R.C.P. (Lond.), Hon. Consulting Physician to the Victorian Sanatorium for Consumptives, Echuca and Macedon.

THE interesting lectures on the "Etiology of Typhoid," by Dr. Corfield, lately appearing in the *Lancet*, and the paper read by Dr. Cherry at the Medical Congress held at Hobart last summer, bring to my mind several interesting facts in connection with the spread of typhoid fever which came under my observation while acting as Medical Officer of Health in the district round Essendon and Flemington some years ago. The connection of mosquitoes with the spread of malarial fever, and the various facts brought to light in connection with the spread of plague, add a fresh interest to such inquiries.

The scattered condition of the population of Australia, the dryness of the soil, and other circumstances, as I pointed out many years ago, render it a most suitable field for an investigation that is almost impossible to carry out satisfactorily in large centres of population.

The propagation of typhoid fever by water and milk is now universally admitted. The late Dr. Edward Ballard, of Islington, placed

Digitized by Google

this beyond dispute. It was my privilege to have assisted that eminent pioneer of State medicine and helped him in this very inquiry which is now such a well-known landmark in hygienic medicine. It may surprise some younger members of the profession to know that this discovery, which now is familiar to the youngest student of medicine, and even to every housewife, is not more than 30 years old. But that the disease has other methods of spreading is equally certain, and is now admitted by most writers on this subject. What these methods are we cannot yet answer with any degree of certainty. Unquestionably, harm has ensued and inquiry retarded by medical officers of health concentrating their minds too much on the water theory and ignoring all other methods. This, no doubt, was owing to the fact that all investigations took place in crowded centres where propagation by water could not be excluded. In my own case I confess that at that time I had strong prejudice in favour of this theory, and this is not to be wondered at considering that for some years during the earlier part of my career I sat at the feet of that Gamaliel of hygiene already referred to; but after my arrival in Australia I found I would have to change my opinions on this as on many other things. My practice at that time was mostly in the country, and in what was in those days a remote suburb—Essendon—where I had abundant opportunities of seeing typhoid; and, moreover, acted for some years as Health Officer to five different councils or shires in that neighbourhood when the disease was much more prevalent than at the present time. In numerous instances I found this fever would break out in a cluster of houses and very often go through the whole of them, when they had no connection as regards milk and water supply; and, as I never had any belief in the air theory, I was for some time very much puzzled as to its methods of propagation.

Being in a house one day where there were two cases of typhoid, and making inquiries about probable modes of infection, and giving the occupants directions about destroying excreta, etc., my eye happened to light on the table, from which the remains of the breakfast were not yet cleared away, and observing the swarm of flies in the sugar basin, on the remains of a loaf, and some butter, it there and then struck me that these little black insects, which I think Mr. Ruskin calls "the very incarnation of liberty," were responsible for disseminating the disease. The first outbreak that seemed to bear on this theory took place in Princes-street, Flemington. The case that started the fever was not under my care, but I visited it as Medical Officer of Health. The patient was a young man who worked and lived in Melbourne, but was brought home to his father's house to be nursed. The disease ran a severe course, and the patient died on the 15th day. From the house where this patient was there came an open drain (into which kitchen and bedroom slops were discharged) which crossed the street and emptied itself into a partially-dry channel excavated by storm water. Round this gutter there was a cluster of seven houses, and not one of these escaped the fever, but strange to say only one or two in a house, and those amongst the youngest members in the family, generally from three to ten years of age. Some of the cottages were supplied by Yan Yean water, but most of them used roof water collected in galvanised iron tanks above ground. Five of the cottagers had cows of their own, and two of them only had a common milk supply. The disease ran a mild course in each case, and none of the patients died.

The next outbreak that arrested my attention took place at the village of Broadmeadows. Here, as in the last case, the first patient came from Melbourne, and the disease spread to a cluster of three other houses in the immediate neighbourhood. None of the patients were in contact, and they all had different milk and water supplies.

A very remarkable series of cases took place in Mount Alexander road, Flemington, apparently through typhoid germs being carried by a drain which ran along the main road for about 300 yards, and then turned into a side street, where it was again in proximity with houses for 400 yards more. Along this drain I do not think that more than three houses out of 30 escaped fever. On the opposite side in these streets here were about 20 houses which all escaped.

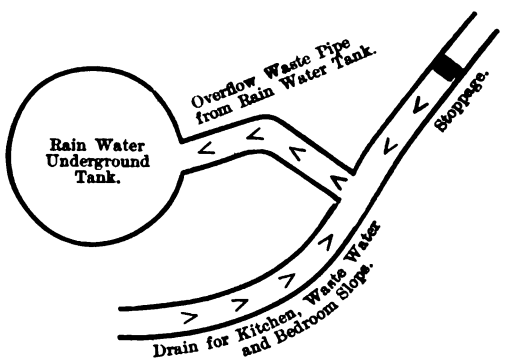
This was not a simultaneous outbreak like the others recorded in this paper, but the disease kept breaking out each year during my term of office, which extended over six years. Generally from two to six houses suffered each autumn, and usually not more than two cases in a house. One house suffered on four different occasions, extending over five years, the fourth year omitted; this house was close to the drain.

All these cases, so far as I could ascertain, were mild, but the disease was pronounced enough to make no doubt about the diagnosis, and there were no deaths. In this instance, as in the others, the first case came from Melbourne, but how it spread in the cottage I never ascertained. There were three cases in all of a severe type, and one died. The bedroom and kitchen slops were thrown into a drain which emptied itself into the side channel of the main road already described.

Digitized by Google

I need not detail any more of these cases, but at that time I saw several such in the country round Essendon, where I could not blame milk or water supply.

Only about half a mile from the cluster of cottages where the first outbreak mentioned took place a series of cases of typhoid occurred, with the result that four members of the family were laid up and two died, and all were severe cases. In this instance it was proved that the family used the water collected on a slate roof and stored in a large underground tank in the yard, which was built in the ordinary way with bricks and cement. The manner in which the water was poisoned is worth recording, and will be best explained by a diagram.



From this it will be seen that the refuse kitchen water and bedroom slops regurgitated into the tank and so poisoned it. It appears that this water was suspected some time before on account of its bitter taste. The mother of the family instructed the children and servants that the water was only to be used for laundry purposes. This advice was for a time followed, but when the hot weather set in it seems the children found the stored water much cooler and pleasanter, which by this time had no peculiar taste or odour, and so they preferred it to the Yan Yean supplied from the ordinary pipes.

I could quote several other instances where the water was poisoned by roots of trees breaking through the brick and cement, and so gave rise to severe and fatal cases.

I trust some of your country readers will follow this up. Many practitioners in the bush districts must have some patches of typhoid as described in this paper. That the ordinary house fly is the carrier, and not the mosquito, seems to be probable. I have seen outbreaks such as I have deseribed in England and Scotland, where the mosquito is absent. The only other insect that I suspected was the flea; but from what we know of the etiology of typhoid, and of the way it enters the system, the house fly theory is much more likely to be correct.

That the typhoid germ is always with us is certain, but it seems to be more or less dormant in the winter and early summer months.

When acting as Medical Officer of Health, I generally selected tar as a disinfectant. Stockholm tar, although expensive, I preferred, for flies will not go near it. A solution of tar is about as inexpensive a disinfectant as can be used. In this respect it is better than carbolic acid, and much superior to the solutions of permanganate of potash, chloride of zinc, or any of the odourless class of disinfectants. In bush districts the tar preparations keep snakes, rats, and other noxious creatures, as well as flies, out of closets.

THE PATHOGENESIS AND PROPHYLAXIS OF TYPHOID FEVER, WITH SOME OBSERVATIONS IN THE SAME CONNECTION ON MALARIA IN THE NORTH-WEST.

By T. B. Belgrave, M.D. (Edin. & Syd.), Acting Medical Officer to Wyndham Hospital, W.A.

(Abstract.)

UNHAPPILY, the labours of medical scientists in Europe and America have not been so extended nor conclusive in relation to the pathogenesis of the typhoidal as to that of the paludal, or, as we more frequently call them here, the malarial fevers. The fact is much to be regretted in this country, for while the mortality attending paludal fevers is here comparatively small, that attending typhoid—or those diseased manifestations we commonly vaguely designate by that term—is constant and considerable, in no small degree affecting the economic development of our principal industry.

It appears to me that, with the additional advantages of the valuable digestives and already peptonised foods now at our disposal, we meet in the present day with a degree of success in treatment far exceeding that which obtained even 25 years ago, and enjoy the consciousness of acting on intelligible and definite principles; and if we take 7½ per cent. as the average number of cases now lost in general practice, I think we approximate to the truth.

Now, on this basis, and taking into account the total number of deaths registered in this State from 1892 to 1901—about 2000—as attributable to typhoid, we can form an estimate of the extent of the evil, and the magnitude of the economic loss sustained in Western

Digitized by Google

Australia, particularly on our goldfields, by the prevalence of the disease, and appreciate the national importance of the studies concerned in tracing it to its cause, or causes, and in devising effective preventive measures. This cash loss I find, on calculation, to have been about £360,000, assuming each man's lost labour to have only been worth £3 a week, the total number of patients being about 26,666.

Though the contention that typhoid is a water-borne disease may be correct, this truth must, I think, be accepted with certain qualifying additions, which, properly viewed, though they confirm the main thesis, largely amplify the range to be taken into account, and make a corresponding call on our resources for preventive measures. I submit that in this country the main agencies contributing to the spread of typhoid differ considerably in town and country; in the latter particularly being mainly wind-borne. In large towns, where the baneful system of hydraulic sewerage obtains, bacillary germs are communicated far and wide, in spite of an abundant and pure water supply. One of the principal means of dissemination of the typhoid bacillus in large sewered towns I believe to be traceable to the numerous ventilating air-shafts, which are unavoidable concomitants in the hydraulic system of sewerage.

The diffusion of typhoid and plague in large towns through the agency of the hydraulic system of sewerage is a theme of exceptional importance at this moment to our Branch of the British Medical Association, as it has already been proposed by influential, though irresponsible persons, to reproduce in our western capital the identical sanitary conditions that have brought Sydney to its present calamitous pass.

Though in India, South Africa, Egypt and elsewhere one of the main channels of the dissemination of typhoid may have been water, in open country, on the Westralian goldfields, where there are no running, and few, if any, open streams or permanent fresh water lakes, we must look in other directions for the conveyance of the bacillus to our bodies. Here we universally find the water in domestic use distilled, preserved in tanks and cooling bags, all in practice usually open and exposed to dust and flies, as is also too often milk, meat, butter and other foods.

When, therefore, there appears in a tent or hotel an accidental case of typhoid, in the course of a few days or weeks we notice other cases, these usually occurring in the direction of the prevailing winds, that is to leeward of the starting point. On our goldfields I have particularly observed this fact, and the inference I drew from one instance applies to the whole, namely, that each local outbreak originated in an accidentally introduced case; the hotel in which it occurred not being governed in its domestic ordering by due regard to sanitary requirements, the typhoid poison was accessible to flies, became also mingled with dust on a heap at the back of, but not far from, the building, and the bacillus was conveyed by the prevailing wind blowing both flies and dust into camps favourably situated for arresting them, the drinking water and food contained in open bags and safes affording a lodgment to the typhoid bacilli thus conveyed, ultimately infecting the bodies of some of the inhabitants of the camp. On the basis of the mortality of typhoid—as presented in the official statistical reports—and assuming this represents but 7½ per cent. of the total number of cases, viz., 26,666, the balance being saved by medical treatment, we can form, I think, a fair though rough estimate of the extent and seriousness of the evil, and of the great public advantage that would accrue from the introduction of convenient, cheap, and effective mechanical means for preserving the purity of the drinking water on our goldfields. And if this mechanical means have the further advantage of automatically economising the use of water in settlements where it costs from 6s to 16s per hundred gallons, besides at the same time always affording the user—whether for drinking or washing purposes—the pleasure of having *fresh* water, I think there can be no question that a great point will be gained.

These advantages, I submit, are secured in the apparatus I this evening bring before you. The model before the Branch is a crude one, but the urn when made of white enamelled metal would be pleasant to look at as well as being cooling and advantageous to use.

Soldiers on the march and on halting to encamp too often give a fatal preference to the nearest cool water rather than wait for that sterilised by the medical authorities, with the result that the mortality from typhoid and dysenteric diseases attending soldiers in the field is greater than that occurring from casualties in action. The number of troops who die in India and South Africa through diseases so easily to be prevented by the means I have shown, leaving out of the question even the avoidable sad mortality on our goldfields and the sufferings of people from malaria in the part of the State in which I am practising—which disease is also preventable by the same instrumentality—is my excuse for invoking a little personal aid.

Digitized by Google

The urn, pure and simple, has, moreover, other useful applications, for, connected with water mains in the streets of large cities, and furnished with a float-cock to keep it always filled, it would be found an extremely convenient and inexpensive substitute for the ordinary public drinking tap, as by its use waste through neglect, as now occurs, would be impossible, as when not in use the water is cut off automatically.

With reference to malaria in the north-west, I think under the encouraging influence of the central and local boards of health and the Government medical department the profession have encountered the scourge with considerable effect, though, may be, not without incurring opposition and unpleasantness from local beneficiaries. Though we know we attack the mosquito plague in both its larvæ and developed stages with success, and very few deaths occur among us from malaria, we seem to be in sad ignorance as to the life history and habits of the fly—or, rather, the many varieties of the fly—the main carrier of typhoid on our gold-fields.

I am ashamed to admit that up to the present all the advice I have been able to give to my clients on the subject has been to prevent the access of flies to both food safes, large household tanks and cooling bags; to burn with kerosene and sawdust or *to bury or otherwise cover all refuse until removal or destruction;* to keep unused rooms dark in daytime; to make abundant, though careful, use of insecticidal substances; to cultivate the sweet pea-plant in rooms; to keep windows clean, and dust heaps far away or not at all. As to where and how flies breed in such incredible numbers, and in so short a time, the general public seem to know little or nothing. The point, however, is well worth working out, having a direct practical bearing on the health of that portion of our community to whose industry we owe so much, and which is beset on every side by so many dangers, material, moral, and morbific.

With regard to the nitrification of sewage by bacteriolysis, it will be necessary to demonstrate that the process practically destroys all typhoidal germs before the system can be recognised as being superior to the Liernur pneumatic system of sewerage, in which the sewage is ultimately at the terminal station destroyed by fire, and converted into a safe and marketable manure, or, as has been quite recently shown to be possible, into a fuel.

It happened to fall to my lot while assistant physician to the Lincolnshire County Hospital for the Insane, to have the oversight of the second system of septic upward filtration tanks constructed in the world by the same engineer who constructed the first, which directly caused the death of Prince Albert; and, though my two colleagues and I were in ignorance of the *modus operandi* or hidden working of the measures taken, we realised their practical success. I believe they are even in use at the present day. Still, the pneumatic system of sewerage seems to me to so obviously present advantages over the septic tank and every other system so far proposed for meeting the various difficulties incident to the sewerage and treatment of sewage of large, small and growing cities, that I at present favour its adoption in preference to all others, except, perhaps, in great aggregations of population such as obtains in London, where the hydraulic system is already installed and at a cost involving several millions sterling, and where the septic tank system might be found more economical and easier of application. As regards Perth and Fremantle, which are growing cities and destined at no distant date to join, the "Liernur Pneumatic System" seems to me to be indicated not only by its certainty in preventing or destroying all septic germs, particularly those of plague and typhoid, but by its cleanliness, neatness, and the facility with which it can be extended in the case of growing towns in a new country; whereas, too, I submit that it is not to be forgotten that in the bacteriolytic system there are the dangers to be taken into account which attend the preliminary tanks, where germs are not destroyed but undergo a paraplasmic or new growth stage before the sewage reaches the septic receptacles, in which nitrification or the protoplasmic transformation occurs, a point, I think, which has hardly been taken into account. Whether it be more advantageous to entrust the installation and control of whatever system of disposal and treatment of sewage a country may adopt to the ordinary local municipal authority, or to a body of responsible experts, we have much sadly suggestive data on which to form an opinion.

I should in this paper have hardly referred to these points had I not fancied there existed in Perth, Fremantle and surrounding areas a disposition, may be in perfect good faith, to imitate the costly and frightful errors which at one time prevailed in London, and still prevail in the mother State. In my humble judgment, none of our metropolitan municipal authorities should have more than a "say" in the initiation and control of whatever system of sewerage may be adopted. It is purely a scientific question, the responsibilities in connection with which should devolve—subject to the supreme control of Government and Parliament—on a selected few, whose previous achievements and studies have entitled them to expect the

Digitized by Google

community will receive their opinions with the deference usually accorded to such, as are the outcome of honest and exhaustive specialised intellectual labour.

Here, however, we are confronted with the condition that engineers especially, and scientists of every variety, being human—like the lay general public—are dangerously prone to stick to an opinion or scheme once delivered to the world, and to resist amendments or views of rivals, notwithstanding the plainest opposing evidence, and the suggestion even of their own corrected professional judgment, thereby resisting the indications of their own conscience.

On the goldfields, where winds are frequent, the dried bacilli of typhoid are, doubtless, conveyed to the men's uncovered tanks, safes and water-coolers, and rarely have I noticed a spontaneous effort to intelligently dispose of bacilli-laden excrement, or to disinfect clothing. The former is usually thrown away broadcast, or, on a near dust-heap, become dried and blown away by the wind into quarters previously unpolluted

It is in this connection so much good results from the promotion of the measures suggested from time to time by the local medical officers of health. For my part, in addition to recommending the use of coarse and cheap antiseptics, such as lime, chloride of lime, preparations of carbolic, permanganate of potash, etc., I have urged the house friends of typhoid patients to destroy the stools by fire, or, if they could not or would not do this, to dig a hole several feet deep, empty them into it, and each time of use to cover it with a certain amount of dry soil, and when full to press down or heap stones upon it, digging another not very deep hole to continue the process. Similarly I have instructed my sanitary inspectors not to consent to any broadcast spreading of the contents of the nightman's cart, nor to these being placed in shallow furrows and then covered with loose soil, however distant from the town ; also I have habitually advised the destruction by fire of contaminated clothing and bedding.

In this way much good is done on our new goldfields, where the population is necessarily much scattered. Mine managers I have found pleasantly acquiescent in all little arrangements underground for conducing to the convenience and sanitary safety of the men. I have not, however, found the men equally appreciative in regard to the regulations of the local boards for preserving their health, and I have not envied the lot of zealous and conscientious inspectors, as the men have the power, and too often exercise it, to retaliate seriously for exhibitions of zeal. Under these circumstances officers of health should never be dismissed without the consent of the central board in Perth, which is invariably kept well informed by the periodical reports it receives from its local medical officers, who often, with much public advantage, extend their functions to other very different sources of danger, such as the presence of dynamite stores in dangerous situations, etc.

Though many recondite points in connection with typhoidal and paludal fevers yet remain to be worked out, I think the labours of recent years have been so far conclusive that the Government of the State of Western Australia, if it take in good faith the necessary measures to ascertain the position in which scientific achievement has practically now placed the question of prevention and fearlessly act on the information, the cities of Perth and Fremantle will soon and long enjoy the reputation of being the most sanitary and well-regulated urban areas in the southern hemisphere, however populous and busy they may become.

There remains a point yet to be alluded to, and one, I think, on which the profession all over the island-continent have, with but too little avail, been particularly insistent, especially on mining fields and in country towns—viz., the necessity, not only that every permanent structure should by law be provided with tanks for receiving rain water, but that these should be so designed and placed as to be easily accessible, easily sluiced and cleaned, and made inaccessible to dust and insects, and yet sufficiently exposed to the purifying influence of the atmosphere. This simple matter being now generally neglected except by a few intelligent people, most tanks, when the water becomes low, are mere breeding places for accumulated death-dealing germs, and in the case of so-called galvanised iron or zinc tanks, are further rendered extraordinarily unwholesome by accumulations resulting from the mechanical detachment and chemical decomposition of the inner faces of the tanks themselves, arsenic being often not the least dangerous constituent of these accumulations.

(Read before the West Australian Branch of the British Medical Association.)

An Obstinate Hospital Patient.—At a recent meeting of the Fremantle board of the Public Hospital Dr. Davery reported he had been attending a patient named Loader, who in an accident at Karridale some weeks ago lost one of his legs. He desired to amputate the other leg, which was in such a condition that, failing amputation, there was no hope of saving the youth's life. Loader refused to undergo the operation, and the attendant declared that the patient would sooner die than submit. After discussion the board decided that the medical staff should at once hold a consultation, and that if it was agreed an operation was necessary to save life the lad should be informed to that effect, and if he then refused that he be discharged from the hospital.

Digitized by Google

TWO GYNÆCOLOGICAL CASES.

By Herbert Throsby, M.B. (Syd.), Bowral, N.S.W.

It is not uncommon for the country practitioner to be placed in very awkward and embarrassing circumstances, especially with regard to emergency surgical cases. He is not, like his more fortunate city *confrère*, able to get the advice and help of a skilled specialist at short notice, nor is he able to send such cases to one of the large city hospitals and so remove the weight of responsibility from his often young and inexperienced shoulders. Every country medical man meets with cases sooner or later which, to use an expressive term, make him "sit up," and I think that the following cases occurring in general practice while at Maclean, N.S.W., though not specially rare, seem worthy of record:—

I.

Mrs. M., *æt.* 48, married 20 years, seven children, the last three years ago. Has also had two miscarriages. With every confinement and miscarriage has had more or less profuse hæmorrhage, on two occasions very nearly losing her life by flooding. Has had no other illnesses of note. She has had amenorrhœa for the last two months, but ascribed this to menopause, and did not herself think she was pregnant. There was no history of morning sickness, etc. Menses had always been regular before two months ago and not accompanied by any unusual symptoms. Two days before my visit to her she had noticed a blood-stained vaginal discharge, which had since increased in amount, especially on standing or walking. She had passed a few small clots in the discharge, and had now some irregular bearing down pains. She looked pale and distinctly cachectic and was remarkably thin.

On vaginal examination there was an old perineal tear, the cervix felt hard and somewhat indurated, and did not at all give one the sensation of pregnancy. There was also a large lateral laceration of the cervix, which extended almost up to the fornix. The os was very slightly dilated and very resistant to the tip of the finger. Bimanually the uterus was freely movable and enlarged as a whole to about the size of a large orange. Nothing could be felt abnormal in the appendages. There was some slight bleeding from the os, but otherwise inspection through a speculum showed nothing abnormal.

I thought the case possibly one of malignant disease of the uterine body, and advised her removal to the local hospital for further observation. This she declined for the present, and as she feared an attack of hæmorrhage during the night, I washed out the vagina with hot creolin solution and packed the fornices and vagina with sterilised gauze. She was told to remain in bed.

On my visiting her the following day she said she felt better, and the pains had disappeared. The gauze packing was removed, and the vagina douched. The hæmorrhage had ceased, and there was no further dilatation of the os. She was told to remain in bed for two days, douche herself daily with hot water, and was given a mixture containing ergot and strychnine.

Three days later I got a message to say the bleeding had commenced again. On visiting her I found her condition to be practically the same as before. There had been slight hæmorrhage, and the pains were of the same character. I again advised her removal to the hospital, but this was again refused. I determined, if possible, to explore the uterus with the finger; and, knowing her former history of hæmorrhage, I had ready an irrigator filled with hot water and the usual instruments She was brought across the bed into the lithotomy position and Kelly's crutch adjusted. Per vaginam, the condition of things was the same as before, except that the os was a little more dilated, and I was gradually able to insinuate the index finger into the cavity of the uterus, although the cervix was still very hard and resistant. The cavity of the uterus seemed to be filled with soft yielding material, which gave one exactly the sensation of blood clot, and for which I mistook it. On withdrawing the finger there was very sharp hæmorrhage. The cervix was quickly drawn down to the vaginal outlet with a vulsellum, and the cavity of the uterus douched with hot water. This had no effect whatever in arresting the bleeding, but the flow of water washed out a small mass of material which exactly resembled the classical "bunch of white currants." For the first time it then suddenly struck me the case was one of hydatid mole. There was little time to consider what was best to be done. The hæmorrhage was alarming, and my only assistant a woman, who, half fainting at the sight of blood, was useless. I pressed the fundus hard against the symphysis with one hand, and with the other pressed the cervix upwards and forwards so as to produce acute anteflexion of the uterus. This also was of no avail, and the condition of the patient was every moment becoming more dangerous. I injected a syringeful of ergot aseptic, which had fortunately been previously got ready, into the gluteal muscles, again pulled down the cervix, and with a blunt flushing curette slipped on to the tube of the irrigator, began

Digitized by Google

to rapidly curette the uterus. A large amount of the currant-like masses immediately came away, but the hæmorrhage accompanying them became so profuse that the patient collapsed, and I was forced to stop. The uterus was packed tightly with a sterilised absorbent bandage, as were also the fornices.

By this time she was unconscious, white and pulseless. She was quickly got back to bed, warmth applied, and a couple of pints of saline solution given by the bowel. Strychnine and atropine were also given subcutaneously, and after about an hour of much anxiety the patient recovered somewhat. She was seen again twice during the night, when she complained much of severe cramp-like pains at the bottom of the abdomen, and which seemed to be due to uterine contractions trying to expel the plug of gauze. There was no sign of further hæmorrhage, so I gave her gr. ¼ of morphine and did not remove the gauze, as I feared a renewal of the hæmorrhage. The following day she was removed to the Lower Clarence Hospital, about two miles distant. On arrival there, there was some oozing through the vaginal gauze, and as her condition was not improving, it was decided to remove the gauze and, if possible, to thoroughly clear out the mole, as the uterus might have a better chance to contract and so stop further hæmorrhage. After a preliminary saline injection under both breasts and strychnine, gr. $\frac{1}{20}$, the patient was given ether by my colleague, Dr. J. A. Caldwell, and the packing removed. There was little bleeding, and the os being widely dilated the uterine cavity was thoroughly explored and the remains of the mole removed by the finger, aided by a curette. As well as the currant-like masses there was material which very much resembled placental remains. The disease seemed firmly adherent to the walls of the uterus and was difficult to remove; indeed, it seemed very probable that the uterine walls were infiltrated with the growth.

The patient was put back to bed, atropine gr. $\frac{1}{100}$ was given hypodermically, as well as enemata of brandy, but she gradually sank and died three hours afterwards. Permission for post-mortem examination could not be obtained.

The chief points of interest in this case seem to be:—(1) The remarkable amount of hæmorrhage, which was at first caused by comparatively little interference, *i.e.*, by the introduction of a finger into the uterine cavity. The patient's history showed a strong tendency to bleed at her confinements and miscarriages, and the fatal issue of the case seemed to be in some measure due to this tendency. (2) The great difficulty in controlling the hæmorrhage. This was possibly due to the inability of the uterus to contract properly, both on account of the large amount of mole in the cavity and also to the probability of the walls of the uterus being infiltrated with the growth, though in the absence of a post mortem this could not be verified.

The literature of hydatid mole seems to be rather scanty, and the accounts of the disease in text-books unsatisfactory. Removal of the mole by curettage seems to be the only rational treatment.

My friend, Dr. F. West, of Camden, New South Wales, last year published an account of a successful case in the *University Medical Magazine*. In this case, which was curetted, the material resembling placental remains was also very noticeable.

II.

Mrs. K., *æt.* 30, well developed and previously healthy. Married two years; no children; no miscarriages. Had always suffered severely from dysmenorrhœa, but the menses had been regular. No history of gonorrhœa or leucorrhœa. General health had always been good. The last period had occurred a few days before she sent for me, and was two or three days later than her usual time. It was accompanied by rather more than the usual amount of cramp-like pain, and the discharge was also much darker than usual, being described as "like tar." There was no history of indigestion, vomiting or hæmatemesis.

The night before I saw her she was seized with a sudden violent pain in the lower abdomen, and almost immediately fainted. According to her husband, she became deathly pale in colour and seemed to be on the point of death within a few minutes. She was put to bed, and after a short time rallied and became conscious again. The pain, however, continued to be very severe, and she vomited several times.

I saw her about 9.30 the following morning, about 10 hours after the onset of the attack. She looked absolutely exsanguine, was conscious but restless, and inclined to throw herself about in the bed. The pupils were moderately dilated, the extremities cold and clammy, and the pulse almost imperceptible. She was vomiting some bile-stained fluid at intervals, and complained of occasional cramp-like pains in the abdomen.

On examination the abdomen was slightly distended and was quite dull to percussion all over, with the exception of the epigastric and left hypochondriac regions, where some resonance was still present. Per vaginam the cervix was distinctly softer than usual to the touch, but the os was not dilated, and there was no vaginal discharge. The uterus could be

Digitized by Google

easily felt bimanually, was freely movable, did not appear to be enlarged, and was normal in position. Nothing could be felt abnormal in the fornices.

The diagnosis seemed to be principally between perforation of a gastric ulcer and ruptured tubal pregnancy. The history of onset and the appearance of the patient seemed strongly in favour of the latter. She was in a small cottage ten miles away from our hospital, seemed to be quickly bleeding to death internally, and appeared a hopeless case in every way. She was given morphia, gr. ¼, in two successive doses, and, as she was very thirsty, a little cool milk by the mouth, but no attempt was made to stimulate her. At my request, my friend, Dr. Walter Plummer, of Brushgrove, was sent for, and kindly saw the patient with me early in the afternoon. He agreed with me as to the diagnosis of ruptured ectopic gestation, and wisely advised me not to think of opening the abdomen in her present condition and surroundings. The hæmorrhage had evidently increased since the morning, as there was now a distinct fluid thrill to be made out, and the distension of the abdomen had also somewhat increased. She was also retching occasionally, and the pulse was only just perceptible and could not be counted. It seemed a hard matter to us both to leave the patient without making any attempt to stop the hæmorrhage; but this we had to do, as moving her in the condition she then was, was quite out of the question. As Dr. Plummer had some visits to make in the neighbourhood, he kindly saw the patient again for me in the evening, when there was some slight improvement, but not enough to warrant any idea of moving her.

I fully expected to hear of the death of the patient the next morning, but instead, got a message from the husband saying the patient seemed much better. I went at once, and found that there were evidently signs of the hæmorrhage having temporarily ceased. She was still deathly pale, but the skin was warm, and the pulse considerably improved in tension and 120 per minute. The abdominal signs were the same, except that there was some tenderness on pressure over the lower abdomen. The vomiting and pain had ceased, and the patient said she felt stronger. After giving another hypodermic of morphine, gr. ¼, and some peptonised milk per rectum, I decided to try and move her to the hospital, as the room was small and unsuitable for any operation, and no trained nurse could be obtained. The moving of her was a matter of some considerable difficulty and delay; relays of four men carried her just as she was on the wire mattress of her bed to the river bank, about a mile distant, but it was three o'clock in the afternoon before a steam launch could be obtained, and an hour later before we got her into the ward of the hospital. During the journey there were rather alarming signs of the hæmorrhage having commenced again, as the pulse began to get weaker and more frequent. To make matters more unfortunate, our operating room at the hospital was undergoing repairs, and was quite unfit for use. The light also became very bad owing to a storm. After consultation with Drs. Plummer and McKay, it was decided that the best chance for the patient would be to operate at once, and this we were forced to do in the ward by the light of kerosene lamps. Happily everything necessary for abdominal section had been already prepared by the matron, Miss Findlater. Ether was given by Dr. McKay, and Dr. Plummer assisted me. After hastily cleansing the skin, the abdomen was opened in the middle line below the umbilicus. On incising the peritoneum a large quantity of dark blood immediately gushed out. After removing fully half a bucketful of fluid blood and large dark clots from the peritoneal cavity, the patient was lifted into the Trendelenburg position and the uterus and appendages explored. On pulling up the left appendage into the wound, the tube was seen to have a swelling on the peritoneal part about the size of a walnut, and from a small opening in this a blod clot projected. The left ovary was somewhat enlarged, and in a fibro-cystic condition, so that it was ligatured and removed with the tube. During the operation the patient was given saline solution under both breasts, as well as strychnine hypodermically, and enemata of brandy. Before the abdomen was closed, a jugful of saline solution was poured into the abdominal cavity, and some of this allowed to remain after the sutures were tied. A glass drainage tube was put into Douglas's pouch, and the wound closed by fishing gut sutures, and dressed with sterilised gauze. The patient when put back to bed certainly seemed more dead than alive; she was quite pulseless, hands and feet cold, and respirations very shallow. The legs were bandaged, the lower end of the bed raised, and more saline was given under the breasts as well as atropine, gr. $\frac{1}{100}$, and hot water bags to the body. She rallied after about two hours and the pulse became stronger. The next day the patient had considerably improved; the temperature was normal, pulse 120 and of fairly good tension. As only a small quantity of blood had been withdrawn through the tube, it was removed. The third day after operation the patient took a very unfavourable turn; she looked anxious and

Digitized by Google

pinched about the face, was restless, the pulse was 136 and feeble, temperature 102, and she was vomiting continually greenish bile-stained fluid. She had also some abdominal pain. I thought her chance a very slender one, and suspected peritonitis. She was given chloretone, gr. 15, and the vomiting ceased soon after and she had a little sleep. From this onward her recovery was uneventful, and except for one rather troublesome stitch abscess, due probably to the skin being necessarily imperfectly cleansed, the wound healed soundly.

As is often the case, the specimen was thrown away by mistake, so that I had no opportunity of examining it. When I last saw the patient, some 18 months after the operation, she was in good health. The dysmenorrhœa from which she had formerly suffered had quite disappeared. This result seems to have been due to removal of the diseased ovary.

I have to thank my friend, Dr. Plummer, for his very wise advice and skilful assistance at the operation; also Dr. McKay for his careful administration of the anæsthetic in such a difficult case. But most of all am I indebted to Miss E. ~~Findlater~~, then matron of the Lower Clarence Hospital, for her excellent nursing of the case. To her attention and good care, more than anything else, the patient owes her recovery.

The case seems to be remarkable for the following reasons:—

1. The spontaneous arrest of the hæmorrhage, which was not due to its confinement between the layers of the broad ligament. The bleeding was solely into the abdominal cavity. Whether the morphine assisted its arrest or not it would be difficult to say. However, it seems not unlikely that it did have some influence, as similar treatment by morphine in hæmoptysis, hæmatemesis, and in hæmorrhage from the intestine in typhoid, always, I think, gives the best results. To have given stimulants or ergot before the operation would only have raised the blood pressure, and the hæmorrhage consequently would probably have been increased. If it were possible to tell before operation that the pregnancy had ruptured from the uterine segment of the tube, *i.e.*, that the pregnancy was of the interstitial variety, ergot in such a case might possibly be of value.

2. The alarming condition of the patient on the third day after operation I cannot explain. It might possibly have been due to acute dilatation of the stomach, which, by some late writers, is said to sometimes occur after laparotomy. The patient seemed to have all the characteristic signs of commencing peritonitis, and yet within a couple of hours all these signs ceased.

3. The peculiar fact that the patient had not missed a period. As regards the flow which took place a few days before the rupture of the tube, I think it corresponds to a sign of tubal pregnancy, first described by Cullingworth, due to slight hæmorrhage from the pregnancy passing into the uterus through the uterine end of the tube, and so into the vagina, simulating a usual menstrual flow except for the dark altered blood and the increased pain.

A PECULIAR BULLET WOUND.

By Harrie Cox, M.B. (Syd.), Warren, N.S.W.

In January, 1902, I received a message to attend a boy who had been accidentally shot 30 miles away. On my arrival I found the patient, a boy of 16, lying on a couch, and evidently in great pain. On inquiry I found he had been hit by a bullet fired at a yard distant from a pea-rifle held by a companion. The shot was fired from a little below and to the left. On examination I found a small hole right over the centre of the left clavicle, passing downwards, inwards and to the right. Hæmorrhage practically nil.

The accident took place at 12.30 p.m. I saw him at 7.30 p.m. He complained of great pain on the right side behind and below the scapula, and there was a very tender spot situated midway between the spine and the inferior scapular angle; also he complained of inability to move his right leg or pass water. I found the bladder a little distended, and on passing a catheter drew off about a pint and a quarter of clear urine, not blood-stained. There was total inability to move the right leg, with total loss of sensation below the knee, inability to move the toes of the left foot, with no loss of sensation. On examination of the chest I found a pleuritic rub on both sides behind, with slight impairment of resonance and feeble breath sounds. Pulse 100, temperature 99° F. I gave hypodermic injection of morphia, gr. ¼, to relieve pain, and also to help to lessen any further hæmorrhage into pleura.

On inquiry I learnt that after the accident the boy had walked unaided a distance of 100 yards to a buggy, and that the paralysis had come on about 15 to 20 minutes after the accident had occurred. I dressed the wound and applied hot foments to painful spot on back. Repeated morphia, gr. ¼, at 10 o'clock that night for the pain. I noticed then that the abdomen was somewhat distended, and the boy began to complain of great pain over the liver in front. Was awakened to see him again at 3 a.m., and again drew off urine. The abdomen was now much distended, tender and rigid, with marked

Digitized by Google

tenderness over the liver; temperature 102° F., pulse 110, strong; no sign of hiccough or vomiting. At 9 a.m. distension increased; temperature 102°; still no vomiting; urine again drawn off. Penis remained in state of erection whole time. Gave 1 drachm doses of castor oil every two hours and an enema at 4 p.m., when bowels acted freely. The right leg had fair movement at hip, and left leg had quite recovered movement. No power of movement below knee.

At 10 p.m., I advised removal to Warren Hospital, distant 30 miles, as I could not stay with the case any longer. The abdomen was still distended, rigid, and tender, penis still erected; water had to be drawn off Patient was placed in a waggonette on a spring mattress, and given 1 drachm doses of brandy every half-hour on the way. On arrival temperature was 99°, pulse 120, abdomen still distended, tender. The boy vomited once on the way in; still unable to pass water. Pleural effusion disappearing; still pain under right scapula. Sensation had returned in the right leg, and good movement, except in toes. Repeated castor oil 1 drachm doses; good motion after first dose. I applied hot foments to abdomen. Distension persisted for four days and then gradually subsided, while movement had completely returned in legs, and bladder acted properly. There was never any incontinence of fæces. The tender spot remained in back, and there was some swelling there; on its subsidence, the spot still remained tender to pressure, and there seemed to be a hard nucleus, which I took to be the bullet, and subsequent events proved such to be the case. He was able to be about in eight days, and on the tenth day travelled home by train, some 150 miles. Later on, unknown to me, he was recommended to undergo an operation for removal of the bullet, which was located by X-rays, and removed. It lay in the position indicated, under the skin.

The remarkable part of the affair, to my mind, was that he apparently was developing peritonitis, and it seemed at first as if the bullet had traversed the abdomen and lodged in or injured in some way the lumbar and sacral plexuses. The explanation I have adopted for the swelling, etc., of abdomen and state of the bladder and lower limbs was that the cord of the sympathetic had been injured, or at least that there was effusion pressing on it in the thorax, leading to paresis of intestines and bladder, and also affecting the leg. I should be very pleased if some member would discuss the matter by letter in your journal, and I would be pleased to supply any further information on what appears to me a most peculiar case.

CLINICAL AND PATHOLOGICAL NOTES.

SYPHILITIC DISEASE OF THE AORTA AND AORTIC VALVES.

SUFFICIENT attention seems hardly drawn in the text-books to the importance of syphilis as a cause of disease in the aortic valves or in the aorta itself in early and middle adult life. It is almost certain that where there is no history of acute rheumatism or rheumatic affections cases yielding phenomena indicative of disease of these parts during the age specified will be found to arise from syphilis. The lesions in the aorta itself are eminently characteristic, and are at once distinguishable from those of senile atheroma.

Out of 160 post-mortem examinations conducted by myself such a syphilitic aortitis was met with four times, in three of the cases associated with lesions of the aortic valves. Three were men and one a woman. Their ages were 28, 43, 43 (woman), and 44 years. One acknowledged having had the disease; a second denied it, but had had gonorrhœa; there were no notes respecting it in the histories of the other two, but one of these had gummata in the occipital lobe of the brain and in the liver. The man who acknowledged having had only gonorrhœa had a gumma in the liver. The three cases exhibiting also lesions in the valves died from the effects of such; the fourth case, with aortitis alone, from the cerebral gumma and capillary pontine hæmorrhages.

The macroscopic appearance of the intima of the aorta was almost identical in all. It was much and irregularly thickened, and had a peculiar deformed and scarred and puckered appearance, suggesting the contraction of fibrous tissue. Scattered atheromatous plaques were present here and there, and in one case numerous irregular ulcers involving the intima. The disease did not extend, at least in any marked degree, beyond the arch of the aorta; the vessel had lost its elasticity.

The aortic valves are always described as much deformed, contracted and thickened. In one case the base of a valve was perforated by a round smooth-walled ulcer. In another there were calcareous infiltration and some vegetations (probably of an infective nature, since the patient exhibited, post-mortem, a lobar pneumonia).

Where the valves were defective the heart was hypertrophied and more or less dilated. In only one instance were other valves organically diseased, and in that there was merely thickening of the mitral cusps. In three cases the coronary

Digitized by Google

vessels were stated to be healthy; in the fourth there is no note regarding them. In one case there was an old fibrous patch in the pericardium. One patient exhibited an old absorbed gumma in the lung.

The scarred and puckered appearance in the aorta in these cases can be at once distinguished from the uniform surface of senile atheroma where, even though there be extensive raised calcified plates and even atheromatous ulcers, there is nothing suggestive of a small-celled infiltration which later has contracted in its transformation into fibrous tissue. In the one case we have naked eye evidence of an active process later replaced by a degenerative one; in the other, one degenerative *ab initio*. The deformity of the aortic valves is also greater than that met with in pure atheroma or in that following renal disease, and suggests an origin similar to that of the diseased aortic tissues.

J. B. Cleland, M.D., Syd.
Adelaide, S.A.

A NOTE ON THE TREATMENT OF GOUT.

On so worn a subject it is impossible to say anything new. This note is made under the influence of recent experience, and as a warning against too much "Haig." I must join issue with a gentleman whose work on Uric Acid has passed through many editions, whose writings on treatment have done many a sufferer yeoman's service, but whose doctrines seem to me to rest on sandy foundations, and the practice of whose precepts is not always followed by a blessing.

His advice is too absolute, or his followers too implicit in their belief. Each case must be treated on its own merits, and the constitution of every individual studied. I have seen cases whose sufferings have been greatly prolonged through a too persistent following of the Haigian tenets: cases reduced to sore straits of debility and anæmia through a too continuous administration of salicylates and a vegetarian diet. There lies more peril in indigestion and debility than in whole stacks of butcher's meat and port wine. In the history of gouty patients periods arise during which a little beef and wine would be a wise prescription. If the working of the metabolic organs is below a certain level, it is probable, *cæteris paribus*, that meat and alcohol would lessen goutiness.

Debility and indigestion are far more potent causes of gout than animal food and high living. The state of the tongue, pulse and nervous system should be our guides in the ordering of diet and the prescribing of drugs.

Angel Money, M.D., F.R.C.P., Lond.
Sydney.

MIRROR OF HOSPITAL PRACTICE IN AUSTRALASIA.

PRINCE ALFRED HOSPITAL, SYDNEY.

A Case of Ruptured Traumatic Aneurism of the Subclavian Artery.

(Under the care of Mr. H. Critchley Hinder, M.B., Ch.M., Syd., Hon. Surgeon to the Hospital.)

A man, 32 years of age, was admitted to Prince Alfred Hospital with the following history:—Six weeks ago he became engaged in a drunken quarrel, and received a stab with a knife, just above the outer end of the left clavicle. Being drunk, he did not know in what direction the knife entered. He was told that he had bled freely, and that a pad and handkerchief had stopped the hæmorrhage. The cut healed readily, and at the end of about two weeks he began to work as a labourer. He felt his shoulder somewhat stiff, and then observed that he had a small swelling just inside and below the seat of the old wound. The lump remained the same until two or three days before admission, when it began to enlarge rapidly, and gave him great pain. When he came to the hospital his shoulder was painful, and he nursed it carefully. The skin was tense and dark in colour over a large area between the shoulder and the sternum. The shoulder was raised, and immediately below the clavicle, extending from the sternum to the shoulder, was a large swelling, about the size of the head of a child of 12 months. The swelling so extended into the axilla as to lift the shoulder up and give the clavicle an extremely oblique direction upwards, outwards and backwards. Immediately above the junction of the middle and outer third of the clavicle was a recent scar, over which the skin was thin, and apparently covered a focus of suppuration. There was no pulsation, and a harsh bruit could be heard. The whole of the arm was swollen, and the pulse at the wrist could barely be felt.

Chloroform was administered by Dr. Barling, and it was very evident that the task would not be an enviable one.

I could not be sure of the direction the knife took, but I was hoping that the axillary artery was the vessel damaged. An incision was made in the usual way for the ligature of the third part of the subclavian, but the clavicle was so lifted up and the parts so swollen that I found it impossible to reach the vessel. Nothing

Digitized by Google

remained, therefore, but to open straight into the ruptured aneurism. A long incision was made somewhat parallel to and a little below the clavicle. This was carried down through the pectoralis major and the fascia beneath it until the blood-clot began to bulge. I then prepared for the rush which I knew must come. I proceeded to worm my finger down towards the subclavian, when there was a sudden burst which deluged with blood the field of operation, my assistants and myself. I immediately gave one scoop in order to clear out blood-clot, and then thrust my fingers down to the seat of the bleeding. Even the short space of time thus occupied (about three or four seconds) was sufficient to leave the patient blanched.

An effort was now made to place a ligature round the clavicle and the vessel by making use of my first deep supra-clavicular incision. This, however, was insufficient, for a gush of blood followed immediately my fingers were relaxed. Still keeping pressure on the bleeding spot, the incision was lengthened from sternum to shoulder, and clamp forceps were applied on each side of the seat of hæmorrhage. The man was by this time so low and faint that I was content to apply a ligature on each side of what proved to be a slit two-thirds of an inch long in the third part of the subclavian artery. Either the forceps or the ligatures probably damaged some branches of the brachial plexus, for now that the patient has quite recovered he has completely lost sensation and motion in the whole of his hand, sensation ceasing just above the wrist. The blood-clot had already begun to break down, the seat of infection being under the old scar. Consequently the deep part of the wound suppurated, though I believe that I was able to keep the immediate neighbourhood of the injured vessel free by packing it with sterile gauze for twelve hours, and then draining through the lower parts of the huge irregular cavity which was left.

I do not think that it was possible to approach in any other way the lesion one had to deal with owing to the fact that directly the mass of blood-clot was exposed the burst away had to be expected. Certainly a more trying and ghastly operation I never undertook. One month after the operation a secondary hæmorrhage took place, but Dr. Muscio, my house surgeon, promptly stopped this by plugging the tube track. The blood may have come from the original injury, but I doubt it, mainly because the man recovered without any further trouble. The operation took place six months ago, and the patient is now very well indeed.

The result was all the more pleasing because the liberties, and possibly the lives, of two people were concerned.

REVIEWS AND NOTICES OF BOOKS.

A Text-book of the Diseases of the Ear, for Students and Practitioners. By Professor Dr. Adam Politzer, of Vienna. Translated at the personal request of the author, and edited by Milton J. Ballin, Ph.D., M.D., and Clarence Heller, M.D. Fourth edition, revised and enlarged with 346 original illustrations. London: Baillière, Tindall & Cox, 8 Henrietta-street, Covent Garden. 1902. Sydney: L. Bruck. Demy 8vo. Pages xvi. x 884. Price, 25s.

It has been stated that what Politzer cannot teach about the ear is not worth knowing; and the appearance of an English translation of the fourth edition of this classic enables one still to make this assertion with absolute truth. This work remains as ever the most reliable text-book on Otology. It may be useful to those who are familiar with former editions to notice in what respect the present one differs from the last. The bulk is increased by about 150 pages. The paper is altered in tone, and the type is more distinct. Black lettering takes the place of italics in the heading of the paragraphs. A few woodcuts, principally of microscopic sections, are added; but we are glad to see that nearly all the old familiar "Politzer" cuts are retained

The arrangement of subjects is unaltered, but important sections are interpolated—for instance, an interesting chapter on Oto-sclerosis; another on operations about the mastoid antrum, and on the brain, both well abreast of the times. The section on physiological tests of hearing has been added to, and an important appendix on the requirements in regard to the ears and hearing of applicants for enlistment into the army and navy of the United States and Great Britain.

Another departure from former editions is a collection of prescriptions most frequently used in Professor Politzer's clinic.

The volume concludes with an exhaustive index to the literature of the subject.

An American Text-book of Physiology. Edited by Professor W. H. Howell, of Johns Hopkins University, Baltimore. Philadelphia: W. B. Saunders and Co. Melbourne: Jas. Little.

In the writing of this book eight teachers of the subject in the States have collaborated. The preface speaks as if the book were "suitable to the actual needs of medical students," but really the book is too big for such use—medical students could use it only as a work of reference. It may be described as something between the ordinary text-books and the great text-book by many contributors edited by Schäfer: the former are not very compendious, the latter is not easy to read. This American text-book is easy to read, but only fairly compendious and only fairly up to date. It is of little use for the purposes of research; it is probably not full enough for the practitioner who is looking up particular points: for the student as a text-book it is too much. But, taking it as it is, it impresses one favourably when compared with many other products of the American press.

Anæsthetics: A Practical Handbook. By J. Blumfeld, M.D., Cantab., Assistant Anæsthetist to St. George's Hospital, Anæsthetist to the Grosvenor Hospital for Women and Children, London. London: Baillière, Tindall & Cox, 8 Henrietta-street, Covent Garden. 1902. Sydney: L. Bruck.

One can strongly commend this book, not only to the fortunate students of up-to-date schools where the study of so important a subject as anæsthetics is insisted upon

Digitized by Google

as part of the curriculum, but also, and perhaps more particularly, to their less happily circumstanced brethren who have to pick up, in more or less indiscriminate fashion, their knowledge of surgery's so necessary ally. To the former class it is a useful text-book, while the other will find it invaluable in helping them bind together their fragmentary gleanings in the anæsthetic field. The chapters are well arranged, the treatment concise, and the teaching admirably dogmatic. Only the three commonly used agents—chloroform, ether, and nitrous oxide, their sequences and mixtures—are considered. Those who wish to study other agents and methods may consult more extensive writings, such as those of Dr. Frederic Hewitt. To this author, indeed, there is, in the text, internal evidence of the great indebtedness which, in his preface, the author so freely acknowledges. To a very large extent this handbook is a judicious *resumé* of the last edition of Dr. Hewitt's work on anæsthetics. Where, however, the author's experience differs from that of Hewitt's he does not hesitate to proclaim it. For instance, when speaking of Dr. Hewitt's preference for ether purificatus in administration to rectified ether, he states that as the outcome of his own frequent comparative use of the two he considers the difference in results so trifling that it may be disregarded. He adds, quaintly enough, "the rectified ether is much cheaper." If there were a written symbol to denote the sudden lowering of an eyelid, as there is in interrogation for an uplifting of the same, one would expect to see after this sentence the sign representing a wink. It is particularly gratifying to us in Australia, that the excellent work done by Dr. Embling and Professor C. J. Martin, of Melbourne, on the dangers arising during the early stages of chloroform administration, has been so promptly recognised and quoted by the author of this book. On p. 16 and 17 the results demonstrated by these investigators, together with the conclusions of others, are used to justify the enunciation of a perfect set of rules for guidance in the administration of chloroform.

An excellent chapter on nitrous oxide includes an illustration of an apparatus fitted with Hewitt's ingenious valved stopcock, and simple descriptions of the methods of giving nitrous oxide and air, and nitrous oxide and oxygen.

In chapter III., considering the importance, which is very properly insisted on, of the student familiarising himself with the administration of ether, one cannot but regret that a diagram of the mechanism of Clover's inhaler is not given. The description of the instrument, and of the method of administration therewith, would then have been far more easily understood by the student. An excellent account is given of the phenomena attending etherisation, but in common with other writings the most constant and reliable indication of recovery from deep anæsthesia, and of the necessity for renewing the administration, viz., a *long sighing inspiration* interrupting the previous rhythm of the breathing, is not mentioned. It is peculiar that this constant valuable sign has been hitherto so consistently overlooked, or its significance unappreciated. A full account is given of the useful and safe gas and ether sequence, with illustrations of the necessary apparatus—an ingenious modification of Clover's ether inhaler. The safety, rapidity, and, from the patient's point of view, comfort of this sequence makes it *the* method for hospital practice and for all cases where gas can be readily obtained.

In the chapter devoted to chloroform, the excellent advice is given that the student should familiarise himself with the use of Juncker's inhaler, *because* overdosing is less easily perpetrated with this apparatus than with a drop bottle and mask. And it is refreshing to note that the pernicious teaching of the Hyderabad Commission that the pulse may be disregarded and the administrator's attention contradicted on the respiration is entirely ignored, or rather, countermanded. *Vide* the deduction, "observe the pulse and the pupil frequently during the administration." The description of chloroform anæsthesia induction by Juncker's inhaler, or the drop bottle and mask, together with the consequent phenomena, is complete and convincing. In the second line on page 56 a printer's error substitutes the word "flask" for "mask." In a short chapter on "Mixtures and Sequences," the C.E. mixture is commended as a routine for country practitioners. The C.E. mixture is in the proportion of two of chloroform to three of ether. One would suppose that if a mixture is to be used, it would be better to mix the constituents in proportions corresponding to their diffusion indices, and since the diffusion index of chloroform to that of ether is approximately as three is to four, a mixture in those proportions would be a more scientific one. It should leave no overplus of either ingredient on the mask at any time. But it is probably far better to give chloroform and ether from separate drop bottles, in those cases where ether cannot be given outright, and chloroform alone is unsafe. By this arrangement one can give a greater or smaller quantity of either agent according to the exigencies of the case.

In considering the choice of anæsthetics the author starts with the proviso that the first thing to be considered is the safety of the patient, and then translates this proviso to mean that ether is to be given as a routine anæsthetic unless specifically contra-indicated. With this conclusion the majority of practitioners will agree. He then proceeds to discuss the various factors which may militate against the adoption of the routine practice, and his deductions will for the most part commend themselves to all. One may, however, prefer in cases involving the removal of jaw and tongue, and in other cases involving the oral and nasal structures to any considerable extent, to give the anæsthetic through Trendelenberg's apparatus after a preliminary tracheotomy. Then, too, for the removal of tonsils and adenoids, if the operator be expert, the mere unconsciousness of early chloroformisation is enough to permit of the necessary procedures, and is quite safe. In breast cases it is hard to understand why prolonged administration of ether is considered undesirable by the author. However, in most of these cases the particular habit and training of the anæsthetist will always play a large part in determining the choice of anæsthetic and method of administering it.

The chapter on "The Dangers and Troubles incidental to Anæsthesia" is an exceedingly good one, and is most concisely written. One regrets the ignoring of subcutaneous injections of normal saline solution as a readily-administered and efficacious restorative, and of phlebotomy as a possible help in some cases of heart failure; and one cannot but doubt the policy of introducing the first paragraph on page 90 with reference to the depth of anæsthesia. In chapter 8 the question of position is considered; but here surgeons, and anæsthetists too, will probably join issue with the author in his objection to the "head over the end of the table" attitude for tonsils and adenoids, and other mouth and nose operations. In considering anæsthesia in children one is glad to note that the usual theory that chloroform is absolutely safe with chi'dren is intelligently combatted. Some pertinent remarks on the preparation of the patient, method of removal, and after effects of anæsthesia conclude a book which every student of the subject should procure and read.

F.J.T.S.

Digitized by Google

THE AUSTRALASIAN
MEDICAL GAZETTE.

SYDNEY, 20TH FEBRUARY, 1903.

FOOD ADULTERATION.

One of the most important questions agitating the public mind in the two largest capitals in the Australian Commonwealth at the present time is the large extent to which food adulteration is practised by manufacturers and purveyors of food. In our last issue we mentioned that this matter had been engaging the attention of the New South Wales Board of Health for some considerable time past, and that on the suggestion of the President, Dr. Ashburton Thompson, the Board had drawn up certain regulations specifying the amounts of chemical preservatives which would be allowed in certain articles of food. In Victoria the astounding revelations made by Mr. Wilkinson, the analyst to the Board of Health, as to the amount of adulteration practised by cordial manufacturers in that State, have, to some extent, opened the eyes of the public, and the daily newspapers in both Melbourne and Sydney have abounded with letters and interviews on the subject.

From the manufacturers' point of view the addition of small quantities of salicylic acid, boracic acid and similar antiseptics is said to be necessary to preserve perishable articles of diet in these warm semi-tropical climates, and that it is far better that the food provided should be fresh and sweet, even if adulterated, than partially decomposed. The attitude of the health officials, however, of both capitals is clearly the one most conducive to the maintenance of the public health. It has been distinctly laid down by some manufacturers that the addition of any chemical preservatives in the majority of cases is quite unnecessary, and surely there can be no need for the addition of salicylic acid to beer and cordials if these articles are properly manufactured. While there may be a difference of opinion as to the relative innocuousness of boracic acid or salicylic to healthy persons, there can be no room for doubt that the addition of powerful drugs to foods most commonly used by invalids would be decidedly prejudicial to them. This is specially important in the case of milk, which forms so large a part of the dietary of infants and adults suffering from some forms of disease.

But there is another and, perhaps, even more important side of the question of food adulteration, and that is the substitution of artificial substances for natural products in the manufacture of some articles of diet. There can be no excuse, save a mercenary one, for the manufacture of raspberry cordial from wash and cochineal, or of lemonade from acid and saccharin instead of using the true fruit juices. Such artificial products should be absolutely prohibited by law.

We are glad to note that comprehensive measures are being taken to deal with the various important aspects of the question of food adulteration, and there is no doubt that as a result of these measures the food supply of the large Australian cities will be placed on a more satisfactory footing than it has ever been in the past. Such measures, however, necessitate constant supervision, and the medical profession should take an active part in supporting the health authorities in their endeavours to provide an unadulterated food supply.

TYPHOIDAL INFECTIONS.

Before the days of bacteriology careful clinical and pathological observations served to differentiate many diseases which still hold an independent position in medical nosology. But with the great advance in our knowledge of bacteriological morphology and bacterial

Digitized by Google

chemistry, and by pathological investigations, we have come to recognise the fact that an organism or group of organisms may manifest its pathological activities in different types of disease, and that an individual pathogenic organism is probably a specialised member of a group of allied organisms. The impetus given to bacteriological investigation by the discovery of the agglutinating power of the blood serum in certain diseases, particularly the discovery of this reaction in typhoid fever by WIDAL, has widened our horizon, and we must now take a somewhat broader view of "typhoid fever."

Our knowledge of the variations in the manifestations of disease which may result from a virulent or, on the other hand, a comparatively mild infection, or from the amount of organised poison which has gained access to the system, is still too indefinite to enable us to speak with certainty on many points. But all physicians will agree that in an epidemic of "typhoid fever" we meet with certain variations. Some cases go through a comparatively mild febrile course, with no complications, in which the temperature drops almost by a crisis, and the patients rapidly convalesce; in other words, the disease is said to abort. In others, the attack is prolonged, the temperature is high, the constitutional disturbance is marked, possibly with serious complications, and the convalescence is protracted. Between these two extremes there are many variations, and the question arises, Are all these due merely to differences in the virulence or the amount of the infection received into the system?

Some light has recently been thrown on this question, and there seems little doubt that under the general term "typhoid fever" there are included diseased conditions due to infection by some organism or organisms allied to the bacillus typhosus and the bacillus coli communis, but yet differing from each of these in certain chemical reactions and modes of growth. We read from time to time of cases of "typhoid fever without intestinal lesions," and "cases of typhoid in which the WIDAL reaction has failed," and we begin to wonder what is typhoid fever, and what amount of reliance is to be placed on the WIDAL reaction. But surely if a patient has become infected with the bacillus typhosus, some affection of PEYER'S patches or of the solitary glands in the intestine, whether it be macroscopic or microscopic, is as essential a part of the morbid process excited by this organism as the formation of membrane is a manifestation of the pathogenic LOEFFLER'S diphtheria bacillus. Further, the formation of agglutin in the blood serum of the patient infected with the bacillus typhosus is likewise an essential feature in the case, even though the amount be very small.

If, then, in any case presenting clinically the symptoms of "typhoid fever" we find repeated failure of the WIDAL reaction, and on post-mortem examination an entire absence of any involvement of PEYER'S patches, we should hesitate to pronounce it to be a case of typhoid fever, and would be more correct in speaking of it as one of "typhoidal infection." This is the more appropriate, as the isolation of a para-colon or a para-typhoid bacillus has been accomplished by STRONG, JOHNSTON, LONGCOPE and others. The suggestion that the clinical variations in "typhoid fever" are due to variations in the infecting agents was made some time ago by SPRINGTHORPE, of Melbourne, in an article in the *Intercolonial Medical Journal*, and in our "Review of Current Medical Literature" in this issue there will be found the summary of an article on this subject by BRILL, of New York. While we fully recognise the clinical entity of "typhoid fever" as an infection by the bacillus typhosus, we submit that it would be more correct to speak of a case presenting the clinical symptoms of "typhoid fever" as one of "typhoidal infection," until complete clinical investigation and bacteriological examinations have enabled us to speak positively of the case as one of "typhoid fever," and due to the infection by the bacillus typhosus.

Digitized by Google

THE MONTH.

Special Notice to Members of the New South Wales Branch of the British Medical Association.

MEMBERS of the N.S.W. Branch of the B.M.A. are requested to pay their annual subscription of £2 2s, now due, to Dr. W. H. Crago, hon. treasurer of the Branch, as heretofore. A letter has been received from the general secretary of the parent association approving of this course, and asking members to ignore the circular recently issued by the general secretary requesting them to forward their subscriptions direct to London.

The Medical Profession and the Friendly Societies.

At the last quarterly meeting of the Friendly Societies' Association of New South Wales, Mr. G. T. Clarke, the chairman, stated that nothing further had been done with regard to the attitude of the medical profession towards the Association. The Independent Order of Oddfellows and the Australian Natives' Association were still being boycotted by a section of the medical profession. It is interesting to note how persistently the officials of these societies refer to the New South Wales Branch of the British Medical Association as a *section* of the profession, thinking no doubt by these means to belittle, in the eyes of the members of these societies and of the public, the important and influential position of the British Medical Association. How is it that these societies are so anxious to make terms with the British Medical Association if it is representing only a section of the profession in New South Wales?

Crematorium at Adelaide.

The building for the Adelaide crematorium has been completed, and the furnace was last month submitted to a trial. Only members of the society were invited to attend, and Mr. R. Barr Smith came over from Melbourne specially to be present. The body of a sheep, enclosed in a suitable coffin, was placed in the crematorium. Within half-an-hour the process appeared to be nearly complete, but the burning was continued longer than was expected, and it was an hour and ten minutes when it was finished. The trial was considered to have been completely successful. It is to be hoped that the example set by the Cremation Society of Adelaide will soon be followed in the other large cities of the Commonwealth, and the rational and hygienic system of disposal of the dead by cremation be universally adopted.

Tuberculosis in Victoria.

At a recent meeting of the Board of Public Health in Melbourne, Dr. Gresswell quoted some statistics which showed that there had been a marked decrease in the number of cases of tuberculosis throughout Victoria during the past 15 years. Dr. Gresswell explained that this was the result of improved sanitary conditions and modes of living. The decrease has been principally in cases which have occurred in the metropolis. Last year there were 18 deaths in Melbourne per 10,000 of the population from various forms of tubercular disease. In 1888 there were 27·8 deaths per 10,000 from the same cause. From phthisis there were last year in Melbourne 14 deaths per 10,000 of the population, as compared with 21·5 per 10,000 in 1888. The figures for the whole State had not fallen in quite the same ratio. Throughout Victoria the deaths from tuberculosis in all forms had fallen from 18 per 10,000 in 1888 to 15 per 10,000 last year. The deaths from phthisis had fallen from 14·5 per 10,000 in 1888 to 11·7 in 1902.

Some South Australia Medical Veterans.

It is somewhat surprising to find such a comparatively large number of veteran practitioners in the ranks of the profession in South Australia, the names of several having been on the medical register for more than 40 years. Dr. James Phillips can claim the distinction of being the "grand old man" of the medical profession in South Australia. He was admitted as a member of the Royal College of Surgeons in England in 1843, and was enrolled as a practitioner in that State on April 3, 1849. Dr. Robert Tracey Wylde was also admitted to the Royal College of Surgeons in 1843, but was not registered in Adelaide until July, 1850. Dr. Morgan Thomas began practice in South Australia on July 5, 1852, having secured his diploma in England in 1847. Dr. Alexander T. Gunning, who is still in active service at Narracoorte, has been enrolled on the local register since July 3, 1855. Those who signed the roll during the sixties were Dr. J. W. D. Bain, of Port Germein, whose membership of the Royal College of Surgeons dates from 1864, and who was registered here on August 24, 1865; and Dr. Thomas W. Corbin, who was admitted to the Royal College of Surgeons in the same year as Dr. Bain, and whose local certificate is dated July 31, 1865. Several of those who came to Australia in the next decade

Digitized by Google

are still practising in Adelaide or in various country districts, but most of them might almost claim to be regarded as young men in comparison with the veterans named above.

Overcrowded Asylums.

When the New South Wales Old Age Pensions system came into force it was thought that it would considerably relieve the asylums for the infirm and destitute, and that the Parramatta Asylum especially might be relieved. For a short time this building was not nearly so crowded, as a number of the old men on receiving their pensions left, while others were transferred to Rookwood. Now, however, the building is again as crowded as ever, nearly 900 patients being housed there. A large number of the old men who went out on their pensions soon drifted back, and there is a constant inflow of incurables and chronic cases from the various hospitals, especially from the metropolis.

Treatment of Consumptives.

The necessity which exists in New South Wales for institutions adequate for the isolated treatment of consumptives was emphasised at the last annual meeting of the Sydney Hospital. Under the heading of "Phthisical Patients" the annual report declared "that through lack of adequate accommodation for this class of patients elsewhere, it has been found impossible as yet to entirely exclude phthisical patients from the general wards of the institution. Until an institution is established for the separate treatment of these distressing cases a certain number are bound to be admitted. Scientific opinion is unanimous in insisting that phthisical patients should be kept apart from general medical cases, and the establishment of a depôt in the city for the reception of such cases, whence they can be forwarded to the country, must surely be within measurable distance." But the establishment of a hospital for chronic cases of pulmonary tuberculosis is evidently not regarded by the present Government as a matter of any urgency, as it has been "under their consideration" for twelve months past, and it is still as far off accomplishment as ever. This matter must be again urged upon the Government by public agitation.

Lodge Practitioners' Defence Fund.

At a special meeting of the N.S.W. Branch of the British Medical Association on Friday, February 13th, it was unanimously decided to take steps to establish this fund.

BRITISH MEDICAL ASSOCIATION NEWS.

PROCEEDINGS OF AUSTRALASIAN BRANCHES.

Ballarat.

The annual meeting of the above Branch was held at Ballarat on the 22nd day of January, 1903.

Present: The President (Dr. W. Beattie Smith) and 16 members. Dr. Lidwell and Mr. T. R. Treloar were present as visitors.

Apologies were received from Drs. Connor, Cunningham, Davies, Jordan, Martin, G. Palmer (who we were pleased to hear was recovering from his illness), L. R. Steele and Wilson.

Accounts amounting to £69 5s 10d were passed for payment.

Dr. Cunningham's offer of a number of books for the library was accepted with thanks. Works were also promised by Drs. Mitchell and Morrison, and Mrs. Pinnock.

The following new members were unanimously elected: Samuel Connor, M.D., Ch.B. (Queen's Univ., Irel.), M.A.O. (Royal Univ., Irel.); William Sloss, M.B., Ch.B. (Edin.), F.R.C.S. (Edin.).

The following resignations were received from members who had removed from the district, and accepted with regret:—Drs. Laurie, Lewers, C. F. Lethbridge, W. H. Low, W. Beattie Smith and W. E. Young.

Dr. Salmon moved and Dr. Usher seconded—"That the report of the Pinnock Memorial Fund, recommending the erection of a bronze tablet with burnished lines and inscription in the entrance hall of the Ballarat Hospital, be received and adopted." This was carried.

The balance-sheet of the Medical Defence Association of Victoria was submitted to the meeting, and on the motion of Drs. G. Affleck Scott and Champion the hon. secretary was instructed to write to the secretary of the Association asking for a few particulars as to privileges of members, expenditure, etc.

The annual report and balance-sheet were received and adopted on the motion of the President and Dr. Usher.

Report and Balance-sheet.

Your Council has again the pleasure of submitting the annual report and balance-sheet, which show that the Branch is maintaining its position of usefulness and prosperity. The membership is now 37, being an advance of one since 1901. There are still many medical practitioners in our area, which extends to the South Australian border, who are not members of the British Medical Association, and it is thought that some, at least, of them would join us if they were invited by members with whom they are personally acquainted. Scarcely had the year opened when one of our most active and enthusiastic supporters, Dr. R. D. Pinnock, was taken from us. His place in our society, as well as in the city, will not easily be filled. By his death a vacancy was caused in the trusteeship of this Branch, which was temporarily filled by the Council unanimously electing Dr. William Morrison, an ex-president. During the year we have changed our meeting place to the board room of the Ballarat Hospital, which has been courteously placed at our disposal by the committee, a change much appreciated by our members. We have

Digitized by Google

purchased a handsome bookcase for the room, and have already the nucleus of a library. Many ethical questions of more than local interest gave rise to animated discussions. Foremost among these was an earnest attempt to stem the encroaching tide of honorary medical attendance, and we decided to urge our members not to give their services in any honorary capacity, except to institutions and organisations on a purely philanthropic basis. We have recommended to the Board of Public Health the advisability of appointing properly qualified medical officers of health to work large districts, as we feel that, without special qualification, the work cannot be efficiently performed, nor can any local medical practitioner be as free to correct abuses as could a central independent authority. The training of sick nurses has engaged our serious attention, and we have been in communication with the newly-formed Victorian Trained Nurses' Association. As a result of our efforts, substantial recognition of the rights of country trainees has been granted, so that, among other things, they will not be compelled to travel to Melbourne for their examinations. Ballarat has been selected as one of the local examining centres. We have to express our thanks to Drs. H. V. Bennett and Ulbrick for the many and carefully prepared morbid specimens which have been exhibited at our meetings. Although the original papers have this year been fewer in number, they have been more extensive and of more than ordinary interest and importance. Of our four meetings, two have been occupied by Drs. Beattie Smith and Hardy respectively. A unique evening was spent in viewing a large number of cases of lupus, rodent ulcer, etc., which were, or had been, under the care of our honorary member, Mr. T. R. Treloar, the X-ray specialist to the hospital. The results of this form of treatment in many of these cases were most surprising and encouraginng. The original contributions were:—"A Case of Cæsarean Section," J. T. Mitchell, M.D.; "Lantern Slide Demonstration of the Micro-photography of Diseased Brain Tissues," W. Beattie Smith, F.R.C.S.; "Surgical Gleanings in Europe and America," C. H. W. Hardy, M.B.; "Classification of Plants and Animals," J. F. Usher, M.D.

Receipts and Expenditure from January 30th, 1902, to January 22nd, 1903.

Dr.	£	s.	d.
To Subscriptions to Victorian Branch ..	66	15	0
,, Printing and stationery	2	17	0
,, Bank charges	0	10	0
,, Bookcase	18	10	0
,, Petty cash	1	17	8
,, Wreath	1	1	0
,, Lanternist	0	15	0
,, Bradford & Sons	1	3	0
,, Permewan, Wright & Co.	0	10	6
,, Balance in Union Bank	7	16	9
	£101	15	11

Cr.	£	s.	d.
By Balance, January 30th, 1902 ..	1	10	5
,, Members' subscriptions	82	19	0
,, Accrued interest, fixed deposit ..	17	6	6
	£101	15	11

Fixed deposit receipt in Union Bank, £70.

Audited and found correct, R. A. Cue, W. E. F. Smyth, hon. auditors.

H. R. Salmon, Treasurer.

James T. Mitchell, Hon. Secretary.

January 15th, 1903.

The retiring president then delivered a most interesting and instructive address on "Insanity in its relation to the Practitioner, the Patient and the State." (See page 47.) He then introduced his successor, Dr. J. F. Usher, to the presidential chair.

Dr. Usher thanked the members for the honour conferred on him.

Drs. G. Affleck Scott and Morrison moved—"That a cordial vote of thanks be accorded to Dr. W. Beattie Smith for his address, and that he be elected an honorary member of the Branch." This was carried amidst great applause.

The President then declared the following officers elected without opposition:—Vice-president, J. T. Mitchell, M.D., M.R.C.S.; hon. treasurer, H. R. Salmon, M.B., Ch.B.; hon. secretary, E. Champion, M.B., Ch.B.; members of council (2), G. E. Cussen, M.B., B.S., A. G. McGowan, M.B., B.S.

Drs. Morrison and Champion moved—"That the thanks of the Branch be accorded to the retiring auditors and that they be re-elected."

Drs. Salmon and Naylor moved a hearty vote of thanks to the retiring secretary, Dr. J. T. Mitchell, for the manner in which he had carried out his responsible duties for the past six years. This was carried with applause, and Dr. Mitchell suitably responded.

Drs. Mitchell and Cussen moved—"That Dr. W. Morrison be appointed a trustee in place of the late Dr. Pinnock." Carried.

Dr. G. Affleck Scott's paper on "Cases treated by X-rays by Mr. T. R. Treloar" was taken as read on account of the lateness of the hour.

Drs. Cussen and Gardiner moved—"That the report of the sub-committee on the mileage question be referred back for further consideration." Carried.

Dr. Nesbit gave notice of motion—"That bylaw 10 be revised, and the night of meeting altered to Saturday night."

Dr. Gardiner gave notice of motion—"That bylaw 10 be revised, and that meetings of the Branch be held every two months."

Dr. W. Beattie Smith thanked the members for electing him an honorary member.

The meeting then closed, and the members were entertained at supper by the retiring president.

Queensland.

A meeting of the Branch was held at the School of Arts on Friday, February 6th. The president (Dr. Hopkins) was in the chair, and 19 members were present.

Dr Flynn exhibited photographs of an exomphalic fœtus which survived six hours.

It was resolved, in response to an invitation from the Ipswich members of the Branch, that the May meeting be held at Ipswich.

A circular letter from the general secretary of the Association was read by which members were required to forward the Association subscription (25s) to London direct, and it was resolved that a reply be sent to the general secretary pointing out the disadvantages of such a plan so far as concerned the Queensland Branch, and requesting that the old plan be continued of paying the Association subscriptions to the local secretary, to be by him sent on to London

The president (Dr. Hopkins) and secretary (Dr. Brockway) were nominated as representatives on the first Dental Board.

It was resolved that Dr. Francis be tendered a dinner by the Branch prior to his departure for London.

The President thanked the members for their kind inquiries with reference to his recent accident.

Digitized by Google

Dr. Ham read a paper on "Ptomaine Poisoning," illustrated by specimens of meat, extracts of meat, and microscopic specimens. An interesting discussion ensued.

New South Wales.

COUNCIL MEETING.

The Council met at the Association Rooms on Friday, January 30th, 1903. Present: Drs. Rennie, MacCormick, Dick, Hankins, Fiaschi, Crago, Hinder and Worrall.

The minutes of the previous meeting were read and confirmed.

The following new members were elected:—Dr. J. A'B. Barton, Dubbo; Dr. A. I. Blue, Glebe Point; Dr. John Kirkwood, Cooma; Dr. E. Tudor-Jones, Annandale; Dr. Patrick Kennedy, Albury; Dr. J. H. Little, Armidale; Dr. A. J. S. Brandon, Darlinghurst.

Letter from the secretary of the Dental Hospital was read.

Letter was read from Dr. Lovegrove, of Rylstone, with reference to medical witnesses' fees. Resolved—That Mr. J. C. Fitzpatrick, M.P., be thanked for his assistance in the matter.

Dr. Crago read correspondence with the Home Association *re* the collection of Branch subscriptions.

Resolved—That circulars be sent out asking members to forward subscriptions to the hon. treasurer as usual.

Resolved—That the special general meeting be held on Friday, February 13th, at the Royal Society's Rooms.

Accounts passed for payment:—W. Pepperday, £2 6s 6d; stamps, £3 13s 1d.

The hon. treasurer brought the question of the finances of the *Australasian Medical Gazette* under consideration.

OBITUARY.

Charles Michael Rorke, L.K.Q.C.P. (Irel., 1879), L.R.C.S. (Irel.), 1878, North Sydney.

We regret to have to record the death, on January 18th, of Mr. Charles Michael Rorke, of North Sydney. He was born in Trim, County Meath, Ireland, on December 21st, 1845, and was the fourth son of Mr. Andrew Rorke, of that town. Mr. Rorke was educated at Mount St. Mary's College, near Eckington, Derbyshire, where his career was marked with brilliancy. Leaving there at the age of 17, he was for a time engaged in commercial pursuits in Dublin, and subsequently travelled to Spanish South America to take up sheep-farming. Returning to Dublin in 1873, he entered the Ledwich School of Medicine, and finally qualified as L.R.C.S., Irel., in 1878, and L.K.Q.C.P., Irel., in 1879. He practised for a short time at Wigan, England, and again proceeded to Buenos Ayres, South America, where he served with the Ambulance Corps for the Revolutionists in 1880. Returning to Dublin again, he studied ophthalmic surgery for one year, and in 1881 sailed for Sydney, Australia. He then settled at North Sydney, where he has enjoyed a lucrative practice from the start, which his conscientious and painstaking endeavours enabled him to preserve to the end which came so suddenly. He had for some years suffered from anæmia, and lately showed signs of weakness in health and strength, but no alarming symptoms occurring he refused to take the rest his friends urgently advised. On the day of his death he went his usual morning round, and performed an urgent operation at the North Shore Hospital; but before leaving the hospital he complained to a colleague of severe cardiac pain, and was urged to return home at once and rest for the day. On arriving home he again complained of pain in the chest, and died suddenly while reclining on a sofa in the presence of his wife and family. Death was attributed to angina pectoris.

Mr. Rorke centred his interests in his profession and in his home. Endowed with native wit and a kindly disposition, shrewd and businesslike, he displayed a character which made him honoured and respected. At its inception he was appointed one of the honorary medical officers of the North Shore Hospital, and with only a brief intermission enjoyed office till his untimely end. His funeral, which took place at Gore Hill, was very largely attended, and genuine sympathy manifested for his widow and seven remaining children.

Leslie Frank Bucknell, F.R.C.S. (Edin.), late of Petersham, Sydney.

The death is announced by private cablegram, at Edinburgh, Scotland, of Dr. Leslie Frank Bucknell, late of Petersham. The news was not unexpected, as deceased was in indifferent health when he left Sydney a few months ago. Dr. Bucknell was a son of Mrs. Bucknell, of "Avondale," Arncliffe, and brother to Mr. W. W. Bucknell, of the Registrar-General's Department, and Mr. D'Arcy Bucknell, solicitor, of Yass. He was a student at the Sydney Hospital, but qualified in Scotland. The deceased commenced practice some four or five years ago at Kogarah, where he remained for some years, after which he made a trip to England and the Continent, taking his F.R.C.S. at Edinburgh. About 18 months ago he started practice at Petersham, but after about 12 months' work he developed a splenic tumour, which on abdominal section proved to be sarcomatous. Dr. Bucknell decided to dispose of his practice, and some three or four months ago left for the old country. At the time of his death Dr. Bucknell was in his 40th year, and has left a widow and small family.

Francis William Home Popham, L.R.C.P. (Edin), M.R.C.S. (Eng.), 1872, Gawler (S.A.).

We regret to record the death of Dr. F. W. H. Popham, which took place suddenly on January 26th while he was visiting Port Victor with his wife and child. He was born in the English Channel 54 years ago, when his parents were on the voyage to South Australia. He was the only son of the late Dr. W. H. Popham, of Gawler, and was destined by his father to qualify for the medical profession. When a young man he went to England and obtained the qualifications of M.R.C.S. (Eng.) and L.R C.P. (Edin.). As a student he served on the German medical staff in the Franco-Prussian war of 1870. He also played a useful part in the small-pox epidemic in London in 1870 and 1871. He returned to South Australia in 1872, and succeeded to his father's practice. He soon established a reputation as a skilful surgeon and physician, and maintained the connection which his father had built up. He enjoyed a high reputation amongst the members of his profession, alike for his attainments, his *esprit de corps*, and his good fellowship. As a lodge surgeon he was connected with most of the friendly societies of the town. He filled the position of Officer of Health to the Local Board of Health, which duties he carried out gratuitously. Outside his professional claims Dr. Popham did good work as a citizen and exercised a useful influence. He was connected with the Benevolent Association and the District Trained Nursing Society, and was also president of the Gawler Club and a vice-president of the

Digitized by Google

Agricultural Society. He was an enthusiast in military matters. His association with the medical staff of the South Australian military was marked by gradual promotion until he attained the distinguished position of P.M.O. with the title of Lieutenant-Colonel Brigade Surgeon. He was an ardent Freemason, and became a member of the Lodge of Fidelity, Gawler, 19 years ago, and in the course of time was installed as W.M. In his business enterprises Dr. Popham had a strong desire to benefit the town and district as well as himself. He lost thousands of pounds in attempting to develop the gold industry at Barossa, and also lost heavily in endeavouring to carry on the Albion mills. He was liberal in his donations to charity, and had many personal qualities of a robust and praiseworthy type. He was twice married. His second wife was a daughter of the late Dr. Clindening, and much sympathy is felt for her in her bereavement. There also survives a daughter but seven weeks old.

CORRESPONDENCE.

London.

(FROM OUR OWN CORRESPONDENT.)

Lord Lister's Jubilee—The Editor of "The Practitioner"—Representation of the London University in Parliament—Progress of Cremation—The General Medical Council—Leprosy in India and Ceylon—The Royal Society's Medals.

On the 9th of December, fifty years ago, Lord Lister took the Fellowship of the Royal College of Surgeons of England. The nature of the service which he has rendered to mankind throughout that long period of active work is too well known to need repetition. Honours, although unsought, have fallen abundantly upon him, the latest being in connection with his jubilee, when his Majesty the King of Denmark, in recognition of the great event, created him a Knight Grand Cross of the Order of Dannebrog. But it may be safely asserted that the aim and struggle of a singularly simple-minded but strongly purposeful life has been, not his personal advancement or glorification, but an undeviating desire to demonstrate the practical utility of the views he held, and by their acceptance to further the great causes of science and of humanity. "Whatsoever thy hand findeth to do, do it with all thy might," may be taken to have been the guiding principle of his life. It falls to the lot of few men to live to see a whole science reformed as a direct result of the life-work they have accomplished, but no less than this it is Lord Lister's fortune to have achieved. Throughout the whole world it is to-day fully acknowledged that his labours have made his name immortal, and have placed him, with Virchow and Pasteur, on a pedestal of fame before which the devotees of science will ever worship with gratitude and affection. *The British Medical Journal*, of 13th December, devotes its pages specially to the commemoration of this auspicious event, and gives to its readers a succinct and comprehensive account of Lister and his work. Professor von Bergmann, M. Lucas-Championière, Professor Durante, Professor Bloch and Professor von Mikaliez-Radecki have contributed valuable papers bearing testimony to the honour and esteem in which these distinguished foreign surgeons hold him on whom they are pleased to look as their master; while appreciative articles are also published from the pens of Professor Annandale, Sir Hector Cameron, Professor Chiene, Dr. Berry Hart, Professor Ogston and Mr. Watson Cheyne, all of them men who have followed at home Lister's work from its earliest beginnings to its triumphant achievements. But though the main incidence of the benefits which have resulted from his discoveries has fallen upon surgery, other departments of the medical art have much to thank him for. In medicine, the antiseptic theories of Lister have largely increased the scope of the therapeutist, and have, in the case of some diseases, revolutionised his methods of treatment. They have been of incalculable advantage to the experimenting physiologist, and have enabled him to study vital processes in the tissues and elucidate problems bearing upon the functional activity of the various organs in health and disease in such a way as in pre-aseptic days would have been impossible. In short, in every department of the healing art Listerism has exerted a practical influence greater than that following upon any previous scientific discovery. Not the surgeon and physician only, but the gynæcologist, oculist, aurist, dermatologist and, more or less, every other specialist has to thank him for having aided them in their work, by enabling them to deal successfully with that vast array of sickness and death, which, through his labours, they now clearly recognise as being the direct result of some departure, whether natural or artificial, from his great doctrine of cleanliness. *The British Medical Journal* deserves the thanks of the profession for its interesting "Lister Jubilee Number," and the editor will have the hearty approval of every medical practitioner to these weighty words: "For what he has done, and for what he is, we honour Lord Lister more than warriors and statesmen. His work has not been for a nation, but for the whole human race. He has saved mankind incalculable suffering, and in looking at the work of surgeons in every civilised country, he may say with legitimate pride, '*Quae regio in terris nostri non plena laboris?*'"

At the end of the present year Mr. Malcolm Morris retires from the editorial chair of *The Practitioner*, after having guided the fortunes of that journal for upwards of eight years. To those who have been constant readers of *The Practitioner*, it will be a matter of some regret that its direction should pass into other hands at a time when its usefulness has but become steadfastly established. In his valedictory note Mr. Morris says the journal came into his hands with a good name made by its former editors. This may be true, but within the past few years it has achieved a popularity which it did not previously possess, and for which the judicious management of Mr. Morris has been in greatest measure responsible. Among other features of the enlightened policy which he pursued, his plan of issuing special numbers had much to commend it; and notably the "Cancer," "Tuberculosis" and "Bright's Disease" issues were of eminent usefulness as focussing the most up-to-date knowledge of the symptoms, causation and treatment of these important diseases. Mr. Morris's numerous friends will unitedly wish him many long years of healthful and active life in the retirement which he has found himself compelled to seek, and the readers of *The Practitioner* can but hope that his successor will follow in the footsteps of him who has gone before.

Sir Michael Foster has addressed a letter to the chairman of his Parliamentary committee intimating his intention to resign his seat as member for the University of London at the close of the present session. At the request of a number of Sir Michael Foster's supporters, Sir John Williams, Bart., M.D., F.R.C.P., Emeritus Professor of Midwifery at University College, has consented to contest the vacancy which will thus be created. It is reported that Sir John is about to retire

Digitized by Google

from active practice. He will, therefore, have ample leisure to devote to Parliamentary duties. A requisition has also been made to Sir Philip Magnus to stand as a representative of educational interests. Sir Philip is the Deputy-Chairman of Convocation, and is well acquainted with the work and requirements of the University. Both these gentlemen would, if returned, give a general support to the Unionist administration. The Liberal Association also intends to enter into the contest, and it is rumoured that it has selected as the Liberal candidate Sir W. J Collins, surgeon to the London Temperance Hospital and late Chairman of the London County Council, who previously contested the seat against Sir Michael Foster.

The fact that cremation as a means of disposal of the dead is gaining ground in public favour is evidenced by the inauguration of a new crematorium at Golder's Green on November 22nd. The buildings have been designed by Messrs. Ernest, George & Yeats for the London Crematorium Company, and when finally completed will include a chapel and a columbarium fitted to receive the urns and ashes. The institution is within easy distance of London, being in the Hampstead district, and within five miles of the Marble Arch. At the opening ceremony, Sir Henry Thompson, Bart. (President of the Cremation Society of London), delivered an address, in the course of which he sketched the history of the cremation movement in this country, and mentioned that during last year there had been 300 cremations at Woking, and that crematoria were now in existence in Manchester, Liverpool, Glasgow, Hull, Darlington and Leicester. Most medical men will sympathise with the efforts of this Society, and will feel grateful to Sir Henry Thompson for his unwearied zeal in the promotion of a cause which, both from the point of view of sanitation and of common sense, is so much in the interest of the public weal.

The seventy-fifth session of the General Medical Council terminated its business on Tuesday, December 2nd. The amount of work got through was considerable, and fortunately there was no very contentious subject over which time could be wasted or gallery oratory indulged in. A new Medical Acts Amendment Bill, which provided the most important business of the session, was introduced and discussed. It proposes to set the financial affairs of the Council right by providing for an increased registration fee, and for a concentration of the financial department, so that the Council itself, instead of the several branch councils individually, shall receive and administer the income and expenditure, and shall appoint and pay all the officers. Though some members objected to this consolidation of the Council's pecuniary affairs, the arguments in favour of it are very strong, and as the existing discrepancy between income and expenditure amounts to something like £1500 a year, it is obvious that strenuous measures are imperatively demanded, and that these must be of a more drastic nature than any mere system of minor economies such as seemed to commend themselves to several of the representatives. The penal cases were, on this occasion, neither numerous nor of striking importance.

A largely attended meeting in connection with the Prince of Wales' Leprosy Fund was held at the London Polyclinic on November 26th, under the presidency of Sir Joseph Fayrer, when an important paper was read by Mr. Jonathan Hutchinson. In the course of his remarks Mr. Hutchinson said that they were gathered together in the interest of a tenth of a million of their fellow mortals who at the present time in India were sufferers from leprosy. The sum total of lepers was never less than 100,000, and the disease steadily maintained its ground from year to year. He was about to undertake a journey to India and Ceylon in order to personally ascertain the facts as to the local prevalence of the disease and the causes which had influenced its decline in some places and its increase in others. He was strongly of opinion that leprosy was, in the main, a food disease, that it spread only to a very small extent by personal contact, and that badly cured and imperfectly cooked fish was the one article of food which was to be suspected of being the medium of propagation of the disease germs. He thought it was clearly proved that leprosy was not caused by poverty *per se*, by deficient food, or by disregard of ordinary hygienic laws. If food was the vehicle of its spread it was probably the same element of dietary which conveyed the germ in Norway as in India. The disease had always been, and still was, conspicuously prevalent in Norway and Iceland; and a glance at any map would demonstrate that all the world over its regional prevalence was chiefly on the sea coast or in the river valleys. The discovery of a direct relationship between Hansen's lepra bacillus and cured fish was probably one which awaited them in the near future. His own belief was that leprosy spread mainly and in the first instance through the consumption of imperfectly cured fish, and, secondly, through commensal communication such as might readily happen by the taking of food from a leper whose hands were covered with sores. Leprosy had prevailed in India from time immemorial, and his intention was to investigate on the spot the facts as to the trade in cured fish, to enquire into the reliability of the statement that in certain places where the disease was prevalent no fish was eaten, to endeavour to estimate the proportion which high-class Hindoos in the leper population of the country bear to others, and to ascertain as far as possible at leper asylums what proportion of cases might be reasonably attributed to community spread and what to *de novo* development. In the discussion which followed Mr. Hutchinson's paper considerable doubt was expressed by several speakers on the validity of his theory as to causation, but there was unanimous agreement that his forthcoming journey ought to result in much light being thrown on the subject.

The Royal Society's medals have this year been allocated as follows:—The Copley Medal, which was founded in 1709, has been awarded to Lord Lister "in recognition of the value of his physiological and pathological researches in regard to their influence on the modern practice of surgery." Two Royal Medals, founded by George IV, are presented annually for the most important scientific papers published in the British dominions, not more than ten nor less than one year from the date of the award. These have been given this year to Professor Schäfer, of the University of Edinburgh, for his researches into the functions and minute structure of the central nervous system, and to Professor Horace Lamb for his investigations in mathematical physics. The Buchanan Medal has been bestowed on Dr. Sidney A. Monkton Copeman for his experimental work in connection with the bacteriology and pathology of vaccination. The Darwin Medal has gone to Mr. Francis Galton; the Rumford Medal to the Hon. Charles Algernon Parsons; the Hughes Medal to Professor Joseph John Thomson; and the Davy Medal to Professor Soante August Arrhenius, of Stockholm.

NEW SOUTH WALES MEDICAL BENEVOLENT FUND.—The hon. treasurer, Dr. H. L. Maitland, begs to acknowledge the receipt of the following additional subscriptions to the above:—Drs. Henry (Grafton), Crooks, Watson Munro, Wrigley, Poggioli, Rane, the foregoing were for two years; Dr. Meeke, for one year.

Digitized by Google

Victoria.

(FROM OUR OWN CORRESPONDENT.)

The Victorian Medical Defence Association—The Chief Justice and Cancer Cures—Miscellaneous Items.

THE annual meeting of the Victorian Medical Defence Association took place on the 3rd instant. A fair number of medical men attended, but, considering the numerous disadvantages under which the general practitioner labours, it does not speak much for their anxiety to better their position when such a small proportion of members can make it convenient to attend such a meeting as this. Dr. Hamilton, of Brunswick, occupied the chair until the arrival of the president, Dr. Syme. The report was read by Dr. Officer (the secretary), and among other matters referred to in it was the action of the Council in dealing with two recalcitrant members, but the names of the offenders are not given, as the legal adviser states that the Association would be liable if this were done. Many doctors would like to know what the Society is for if it is not to uphold the dignity of the profession, as well as to inflict a proper punishment on evil-doers in that profession. If such considerations as these are to be held by the Council in the future, in what way are practitioners to know what course they are to pursue with regard to professional malefactors, and in what way is the Defence Association likely to be of any benefit to its members? Dr. Andrews, of Hawthorn, asked why the names of offenders should not be given, as he did not know who they were and might be meeting them in consultation. Dr. Mullen explained that an action for libel would certainly lie if names were published in the reports or papers, and under these circumstances it was thought better by the Council not to publish names. The names of the two medical men were eventually obtained from one of the members. Dr. Cowan, of Kew, asked about insurance fees, and was informed that owing to so much divergence of opinion amongst medical men no opinion had been arrived at. Dr. A. Black inquired whether any meeting had taken place at the Tasmanian congress between representatives of the defence associations of the different States, as had been agreed upon at a former meeting of the Victorian Medical Defence Association. The Vice-President replied that it had been found impossible to obtain a quorum. Dr. Fyffe asked if the Public Board of Health or any of its officers were liable for expenses when they asked a general practitioner to see and attend an infectious case such as plague. Dr. Mullen replied that by law the Public Board of Health could not be sued, but that he had heard of several medical men who had received fees for this work. Dr. Fyffe suggested that in future he would decline to attend such cases without a guarantee, and he hoped that other practitioners would make a note of his experience. Dr. Vance drew attention to the fact that the notification of infectious disease, which medical men were compelled to send to the Public Board of Health and to the Local Board of Health, were now not transmitted free by post, and that numbers of notifications had been returned with a request of 2d more to pay, and a notice on the envelope informing them that if they refused to pay this amount they were liable for a penalty of £2. On inquiry at the offices of the Public Board of Health it was ascertained that the notification to the Local Board required a stamp and that the Public Board of Health notification still went free by post. Dr. Andrews thought it would be a good idea for the Council to keep in touch with the sub-centres more and to have meetings of secretaries of the sub-centres more frequently, when all local matters might be brought more prominently before the Council, who would then be in a better position to legislate for the profession. Dr. Bryant quite agreed with Dr. Andrew's idea, and thought it would be highly beneficial for both sub-centres and Council. Dr. Syme (president) replied that the Council would give this matter their earnest consideration. The report and balance-sheets were then adopted, and the election of three members of Council was proceeded with. The retiring members were Dr. Horne (Clifton-hill), Dr. Boyd, and Dr. Eugene Anderson, all of whom were again eligible for re-election. Dr. Bryant proposed Dr. Willis (Malvern), and Dr. Player seconded him. The result was that Drs. Horne, Boyd and Willis were elected.

Our Chief Justice has views on the cure of cancer, and a deputation of supporters of a so-called "Professor" Davis interviewed him at the Law Courts with a petition signed by 2311 persons. For our good Chief Justice to express his opinion on such a subject as this, or even for any of the self-styled Cancer Research Associations to do the same without first proving that they are able to judge what is cancer and what is not cancer, simply stultifies the whole proceeding. Where did they obtain their physiological and microscopic experiences, by means of which alone can any differentiation be made between the innumerable tumours (malignant and benign) to which the flesh is heir? It is greatly to be deplored that the Chief Justice has allowed himself to give his opinion upon a matter with which he has not the slightest acquaintance. The bootmaker should stick to his last and the judge to his legal matters, and by so doing many wrong opinions would not be uttered, and many a poor person suffering from imaginary cancers would not be looted by untruthful charlatans.

A successful operation for perforated typhoid ulcer was performed by Mr. O'Hara at the Alfred Hospital a few weeks back.

The Melbourne Women's and Alfred Hospitals are all urgently in need of monetary assistance in order to keep all their wards open, and the Infectious Diseases Hospital is still in *statu quo*.

There have been numerous cases of snake-poisoning this summer, but so far all have recovered, either from the efficacy of the treatment (strychnine hypodermically and chloride of lime) or perhaps snakes are not so venomous.

The number of gun accidents lately have been greatly on the increase, and the exhibition of a good, stiff gun tax, no doubt, would be very good preventive treatment. Bathing fatalities have also been very numerous both along the coast and inland.

During the warm months just passed there have been the usual number of deaths from gastro-enteritis, and also many cases of ptomaine poisoning from tinned foods, etc. Most practitioners aver that true dysentery is now much more prevalent than it used to be a few years back.

THE DOCTOR'S HOLIDAY.

(To the Editor of the Australasian Medical Gazette.)

SIR,—The temporary exchange of practices suggested in an editorial of your last issue might do for a man whose exchequer won't stand a *locum;* but the ideal holiday is an anchorage to some part of this earth, a long, long distance from the grumblings of the chronic and the plaintive appeals of the infant engaged in the throes of teething—a long way off, in fact, from the depressing effects of the sombre-visaged hypochondriac and the maunderings of the household Martha, which act like a sinapism on the over-worked club doctor.

Digitized by Google

In an exchange of practices there would be no escape from the lamentations of the hollow-cheeked female with that everlasting backache; whilst the medical gentleman with a brand new theory on something-or-other, and an up-to-date method of treating it, would still clog our weary steps and make our lives (or holiday) an uninterrupted torment.

Give this humble scribe a tent, a billy and some hash, and a week in a mountain fastness of this great country, with the twinkling stars and a scalper chop for companions, and his lullaby the weird, soul-stirring sound of the marauding dingo, and he doesn't want anything else until that week is up—unless it's another week of the same sample!—I am, sir, etc.,

R.H.T.

Newcastle.

TONIC CONTRACTION OF THE UTERUS.

(To the Editor of the Australasian Medical Gazette.)

SIR,—May I be permitted to reply to some comments upon my report of a case of the use of amyl nitrite in uterine tonic contraction, by a writer signing himself "G.R.," in your issue of January 20th, 1903.

(1) "G.R." thinks it was the "chloroform poisoning" (?) that caused the relaxation of the uterus. In that case, as the "poisoning" had been maintained by Dr. Kennedy for some minutes on that and previous occasions before my arrival, it seems strange that there had been no relaxation before administering the amyl nitrite. Let that remain as a matter of opinion. (2) "G.R." must have glanced through my small contribution rather hurriedly, or he would have seen that the arm of the child was prolapsed, and the head out of reach, and that one could not get one's hand into the uterus to use an instrument to decapitate, and that the "bulk" of the child was "lessened" by removing the arms, and also that within two or three minutes of giving the amyl nitrite the child was turned and delivered. In short, efforts to decapitate would have been just as useless and lengthy during the contracted condition as efforts to turn. The facts that we were 16 miles from home, and had neither of us been made aware of the class of case we were called to deal with, may count for little. The "accepted rules of midwifery" were not by any means disregarded, as "G.R." appears to think.—I am, etc.,

C. H. SOUTER.

Balaklava (S.A.), January 26th, 1903.

UNIVERSITY INTELLIGENCE.

Sydney.—At the meeting of the Senate of the University, held on February 2nd, on the recommendation of Professor Stuart, Mr. H. G. Chapman, M.D., B.S., was appointed demonstrator in physiology in the place of Mr. H. Hawker, resigned. A letter from University College, London, announcing that regulations had been made to afford facilities for post-graduate work to graduates of colonial universities was referred to the professorial board. On the recommendation of Professor Welsh, Mr. J. E. V. Barling, M.B., Ch.M., was appointed demonstrator in pathology. The following were admitted to the degree of Bachelor of Medicine:—E. L. Newman, T. W. Mason, F. M. Suckling. The following degrees were confirmed *in absentia*:—M.B., E. M. Humphery, R. E. Woolnough.

Professor Zimmer, of Berlin, has come to the conclusion that if women are admitted into competition with men the inevitable result will be a tremendous increase of insanity among the women.

HOSPITAL INTELLIGENCE.

Sydney Hospital.—At the annual meeting of the Sydney Hospital, held on February 3rd, the annual report, which was taken as read, gave the following statistics:—Patients remaining in hospital on December 31, 1901, 304; patients admitted during 1902, 4201; total under treatment, 4505; discharged cured, 2628; relieved, 933; unrelieved, 167; died, 453; remaining in hospital December 31, 1902, 315; percentage of mortality on cases treated, 10; average number of admissions per week, 80; the average number of beds occupied, 298; average duration of stay in days, 27; the number of accidents and urgent cases admitted without recommendations, 1670; the number of cases admitted on Government orders, 1915; the number of cases admitted on subscribers' orders, 87; the number of cases admitted who contributed to their maintenance, 529. Of the 453 deaths, 123 died within 24 hours of admission. The number of operations performed during the year was 2954. Statistics of the out-patients' department:—Medical department, 7641 new cases, 31,202 attendances; surgical department, 3914 new cases, 13,569 attendances; eye department, 1636 new cases, 7907 attendances; ear, nose and throat department, 1516 new cases, 7438 attendances; skin department, 711 new cases, 4019 attendances; gynæcological department, 979 new cases, 5444 attendances; dental department, 314 new cases, 314 attendances (anæsthetics 146, extractions 1486). Total, 16,711 new cases, 69,893 attendances. Casualty department, 10,176 new cases, 23,127 attendances. In the pathological department there were 2086 examinations made. Under the administration of Dr. Herschel Harris, valuable results have been obtained from the skiagraphic department. Besides affording much useful information in operation cases, obstinate cases of rodent ulcer and kindred diseases have been cured by the simple application of the rays. So great has been the demand for treatment and information that an entirely new plant from London has been ordered at a cost of £100. The X-rays were applied in 851 cases. The Government, in response to urgent representations, provided a sum of money on last year's estimates to renovate the Moorcliff Eye Hospital. New casualty rooms have just been completed adjoining the Domain boundary of the Hospital, and are now in working order. The enormous amount of casualty work performed at the Hospital rendered additional accommodation imperative. Various other permanent improvements have been effected during the year. The isolation cottages, which are used for the reception of highly septic or infectious cases, have been remodelled so as to provide more accommodation, and much more comfort and convenience for the nurse who has to take charge of these cases. The balance-sheet showed that compared with the previous year the expenditure has been increased by £1040, and, compared with 1900, by £2656. Subscriptions, compared with 1900, had increased by £936, and exceeded those for 1901 by £852, exclusive of £150 received from the Children's Industrial Exhibition. It was estimated that the additional expense, owing to the drought, of purchasing meat would amount to nearly £2000. Maintenance per bed for the year had been £67, against £63 7s 7d for 1901. For the current 12 months the cost is estimated at £71 2s. The following were elected office-bearers for the ensuing year:—President, Sir Arthur Renwick; vice-presidents, Messrs. Pope and Chapman; hon. treasurer, Mr. David Fell. The following gentlemen were re-elected to the board of directors:—Messrs. R. J. Black, M.L.C., W. H. Flavelle, G. N. Griffiths, and R. N. Sheridan.

Digitized by Google

The Melbourne Hospital.—At a meeting of the committee of management of the Melbourne Hospital on January 27th, consideration was given to various suggested schemes for increasing the revenues of the hospital. Schemes for a systematic exploitation and canvass of the various cities, for a special appeal by letter to the various classes of the community, and for getting in small subscriptions from employees of various places of business, were adopted. If this fails to give sufficient revenue, then one or more wards will be closed.

Sydney Hospital for Sick Children.—At the last monthly meeting of the board of management Dr. Clubbe urged on the board the pressing necessity for commencing the building of the new hospital, stating that in consequence of the cramped and unsatisfactory condition of the present hospital buildings at Glebe Point he had been obliged to take the extreme step of refusing to receive typhoid patients. It was unanimously resolved that a deputation consisting of the Hon. F. T. Humphery, Dr. Clubbe, Mr. H. C. Kent, and Senator Gould wait on the Premier, Sir John See, and request him to expedite proceedings to enable the board to acquire adjoining land, without which the site already granted cannot be utilised for building the hospital.

North Shore Hospital.—At the fifteenth annual meeting of subscribers to the North Shore Hospital the committee's report congratulated subscribers on the large amount of useful work performed during the past 12 months. The total number of cases treated was 341, of which 234 had been discharged as cured, 54 relieved, 9 unrelieved, and 24 had died. The average daily number of beds occupied was 20·97. The average residence was 21·5 days, and the death rate 7·3 per cent. The financial condition was satisfactory, the year closing with a credit balance of £737 8s 9d, the income for the year exceeding the expenditure by £202 7s 3d. The cost per bed per annum had been reduced from £55 18s 9d to £53 11s 4d. The sum of £182 9s 6d had been received from 121 patients who had contributed to their support. The committee placed on record its sense of the valuable services rendered to the institution by the late Drs. A. K. Morson and R. D. Ward, who had at different times acted as trustees. The first portion of the new building provided for 50 beds out of the 200 provided for in the completed building, and every endeavour had been made to see that all the most modern ideas had been embodied. Surgical appliances of the latest description for the operation theatre had been purchased. It was also mentioned that Royal permission had been granted to call the institution the "Royal North Shore Hospital of Sydney."

The Women's Hospital, Melbourne.—In view of the circumstance that the term of office of the present resident medical staff at the Women's Hospital expires on February 28th, the committee has invited applications for the following positions:—Resident medical officer of the infirmary department, at £50 per annum; resident medical officer of the midwifery department, at £50 per annum; and assistant resident medical officer of the midwifery department, at £25 per annum. The duties of medical officer of the infirmary department are at present being temporarily administered at a cost of £200 per annum.

Coonamble Hospital.—At the adjourned meeting of hospital subscribers it was decided to raise the medical officers' salary to £100 a year each.

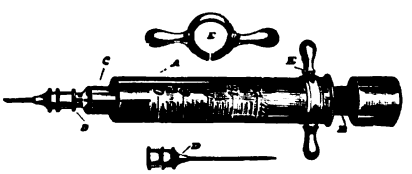
Balmain Hospital.—At the eighteenth annual meeting of subscribers the annual report of this hospital showed that the number of patients remaining from the year 1901 was 12; admitted during the year 1902, 329; making a total of 341, as compared with 330 for 1901. Outdoor department: Total persons treated, 2193, against 2067 for 1901; the number admitted was 14 more than last year; the average daily number in the hospital was 18; the average residence of discharged persons in days was 20½; the mortality on the year's cases was 6·7 per cent. The total number of operations for the year was 326. Of the number admitted, 292 were discharged cured, 10 were discharged relieved, one unrelieved, 22 died, while 16 remained for further treatment. The total receipts for the year were £1774 16s 8d, while the expenditure had been £1307 15s 2d, leaving a credit balance of £467 1s 6d. Dr. C. U. Carruthers, in pursuance of notice, moved—"That it is advisable in the best interests of the hospital that a resident medical officer be appointed." Dr. J. Harding seconded the motion. The motion was debated for a considerable time, and on being put to the meeting was negatived by a large majority.

Glen Innes Hospital, New South Wales.—At the annual meeting of subscribers to the Glen Innes Hospital it was pointed out that the hospital at present labours under a great disadvantage, inasmuch as the committee has been unable to obtain recognition from the Trained Nurses' Association, and it was urged that when the average of 10 beds per diem was reached steps should be taken to have the hospital recognised as a training school.

Perth Hospital, Western Australia.—The Perth Hospital Board has appointed a committee of six to consider the question of past and present appointments on the honorary medical staff and the duties of such medical officers. It has been decided to approach the Government with a view of getting the buildings extended.

NEW INVENTIONS.

We have received from Messrs. Burroughs, Wellcome & Co. a sample of their All-glass Aseptic Hypodermic Syringe. In this syringe the barrel, piston and nozzle consist entirely of glass, the working surfaces of which are ground to fit each other with such accuracy that the solid piston B glides easily and evenly within the barrel A. The nozzle C fits into the barrel A by means of a perfect plug joint, and takes a needle D of the usual pattern. It will be seen that except



during its passage through the needle the solution comes in contact with glass surfaces only, and the four essential parts of the syringe—barrel, piston, nozzle and needle—are instantly detachable, and may be rendered perfectly aseptic. The required quantity of water should be drawn into the syringe, the nozzle removed, and a "Tabloid" Hypodermic Product dropped into the barrel; the nozzle being carefully replaced, solution may be assisted by shaking. A detachable finger-grip is supplied if desired. The syringe is issued in two sizes, min. 15 and min. 20.

Digitized by Google

REVIEW OF CURRENT MEDICAL LITERATURE.

MEDICINE.

Pulmonary Syphilis simulating Tuberculosis.

Berg (*Medical Record*, December 13th, 1902) states that pulmonary tuberculosis is so frequent a disease that it is not surprising that other non-tuberculous pulmonary lesions resembling those produced by the tubercle bacillus are frequently mistaken for it. He records a typical case in a young man, 28 years old, who had had a chancre eight years previously. He presented all the typical symptoms of pulmonary tuberculosis, progressive emaciation, night sweats, hæmoptysis, etc., and physical examination of the chest revealed the signs of consolidation and excavation of the right apex. The patient was treated with 20 to 30 grain doses of potassium iodide and smalll doses of mercury. No other treatment was adopted, and the patient rapidly improved, all signs of disease in the lung clearing up. The signs of pulmonary disease occurring in the course of syphilis, especially late in the disease, should place the physician on the *qui vive* as to the connection between the syphilis and the pulmonary manifestation present in the individual case.

Pulmonary syphilis may be a manifestation of congenital syphilis, the lung being the seat of a connective tissue overgrowth; it may also be a manifestation of acquired syphilis, and may occur in the secondary or tertiary stages. A catarrhal bronchitis is the most frequent clinical manifestation of acquired pulmonary syphilis. This is present in the secondary stage, is more or less local, and subsides under active anti-syphilitic treatment. Patients dying in the tertiary stage have shown not infrequently a stenosis of the trachea or of the larger or smaller bronchi. Gummata have been found in the wall of the bronchi, which undergo fibrous changes, resulting in cicatricial bands, thus producing stenosis. But gummata are also found scattered through the lungs; they are sometimes found on the surface of the lung, but are most frequent around the root, and are more frequent in the lower lobes. They are apt to be surrounded by a small area of inflamed lung tissue, having a tendency to undergo a fibrous degeneration which spreads in fibrous bands through the interalveolar connective tissue, causing a fibrosis of limited areas of lung tissue. Pulmonary gummata may also undergo softening; such degenerated gummata may be discharged through a bronchus, and thus give rise to the formation of a cavity. The symptoms of cases of pulmonary syphilis simulating tuberculosis show some slight variations from those present in pulmonary tuberculosis. The cough is not so constant or persistent, owing to the small amount of expectoration; hæmorrhages are not so frequent, though they do occur; hectic temperature is not so universal, although it does occur, especially if bronchiectatic cavities filled with purulent secretion are present; loss of weight is a common symptom, but not so marked as in tuberculosis; the anæmia is not so great as in tuberculous phthisis; the loss of strength is less in evidence, and night sweats are less often complained of than in tuberculosis; the physical signs detected on examination of the chest are the same as those which are present where the physical changes in the lungs are due to tubercle, but it is more frequently found that pulmonary syphilis shows its earliest manifestations in the lower lobes or at the root of the lung. The presence or absence of tubercle bacilli in the sputum depends on whether the case is one of mixed lesion, for a tuberculosis may, of course, be engrafted on a syphilitic process in the lung. The absence of tubercle bacilli from the sputum with advanced pulmonary changes is an important negative sign, while the presence of bacilli in a case of slowly progressing pulmonary disease with a typical syphilitic history does not exclude the necessity of placing the patient on an antisyphilitic regimen. The success of antisyphilitic treatment in cases of pulmonary syphilis will be an important factor in the diagnosis. This treatment, on the other hand, applied in non-syphilitic pulmonary cases is apt to aggravate the symptoms and course of the disease. Full doses of sodium or potassium iodide, along with inunction of mercurial ointment, should be given. Nothnagel and Rossbach showed many years ago that the effect of the inunctions of mercury is due to the inhalation of the vapour of mercury which passes under the clothing of the patient to his mouth, and is inhaled with the inspired air and absorbed through the walls of the bronchi and alveoli. This fact renders mercurial inunctions of greater value in the treatment of pulmonary syphilis.

Pleurisy in Typhoid Fever.

Sears (*Boston Medical and Surgical Journal*, December, 1902) reports a case whose true character was not suspected until the patient had been several days under observation, and emphasises the fact that pleurisy resulting from infection with Eberth's bacillus may be less rare than published cases give reason to suppose. The patient, an Italian labourer, 20 years old, was admitted to the Boston City Hospital, complaining that 14 days previously he had been seized with a sharp pain in his right chest, which was followed by cough, with frothy expectoration and progressive dyspnœa. There were also fever and headache. Examination revealed the right chest to be well filled with fluid, which had a specific gravity of 1025, and contained one-half per cent. of albumen. This fluid was removed, and while only a small portion of the fluid re-collected, the temperature kept up between 102 and 104 degrees F., and the chart strongly suggested the typhoid curve. Other symptoms were also suggestive, but a Widal test on the 35th day was negative; however, it was positive on the 38th. A marked reaction was also obtained with the serum, which was aspirated on the 59th day. Positive proof of the presence of Eberth's bacillus was not obtained, as the effusion was sterile; but strong presumptive evidence was present in the appearance of the Widal reaction after its previous absence, in the inability to discover tubercle bacilli in many examinations, and in the failure of the patient to respond to tuberculin injections. The temperature chart as convalesence set in was typical of typhoid. Pleurisy appears to be one of the rare complications of typhoid. Betke found 58 instances among 1420 patients; Osler met with it five times among 389 cases. Among 1065 cases admitted to the Boston City Hospital, it was only positively diagnosed 18 times. Except as an initial event, when it may be the most prominent feature and mask the real condition, pleurisy as a complication of typhoid is rare during the first week. It is most common after that date, while the temperature is still high, but it may be delayed until convalescence seems fully established, or even occur as a complication of a relapse. Etiologically, Eberth's bacillus has been demonstrated as the cause, in a considerable proportion of cases, and in a few of those in which the onset of the disease was marked by pleural symptoms, the mild course and the absence of abdominal symptoms, save for a slight digestive disturbance, give reason for questioning if the bacilli may not have been confined in their activities to the pleura. Only two cases, however, were found by the author in which it was definitely proved that the typhoid bacilli were localised

Digitized by Google

there, in both of which the infection was secondary to tuberculosis. In one the typhoid bacillus appeared in pure culture; in the other tubercle bacilli were also present. Autopsy showed a complete absence of typhoid lesions. The Widal reaction with serum drawn from the pleural cavity had been tried in a number of cases with varying results. In some it was negative, while in others a more intense reaction was obtained than when the blood was used.

Raynaud's Disease in Unusual Situations.

Decloux, Ribadeau-Dumas and Sabareanu (*La Presse Medicale*, August, 1902) record the following two cases:— Case 1: A house-painter had his ears "frost bitten" in July, 1892, when the weather was quite warm. The external ear rapidly became capped with a blackish crust. This condition recurred at intervals for ten years. Then in March, 1902, the ears smarted acutely, and next day the nose smarted. Two days later large dark blue areas were visible on the nose and ears. Later the nose showed a blackish area, extending from the middle of the nasal bone almost to the junction of the nose with the upper lip. The patches gradually separated, leaving a condition suggesting scleroderma. Case 2: A woman, aged 65, alcoholic and tuberculous, was seen on November 11th, 1902. Over the lower half of the nose was a dark blue patch which extended to both alæ and stopped at the entrance to the nostrils. In the most prominent part of each cheek was also a discoloured patch of the size of a five-franc piece. There was also a blackish patch on the little toe of the left foot. The writers regard these cases as examples of Raynaud's disease, in which the gangrene has affected the nose and cheeks. Raynaud himself saw only one case in which the nose was affected, but others have occasionally observed it there.

Methæmoglobinæmia due to Acetanilid.

Cabot (*Philadelphia Medical Journal*, November, 1902) gives the following account of a "blue man." A mill operative, 35 years of age, was admitted to the Massachusetts General Hospital in a condition of intense cyanosis. Six months previously he had begun to suffer from pain and numbness in the right side of the head, and some glands began to enlarge behind the angle of the jaw. He began taking acetanilid for the pain, and had taken on an average six 5 gr. powders a day. A month before admission to hospital the blueness of the face and hands was noticed, and it had persisted ever since. On examination the patient's skin was seen to be of a yellowish livid hue, much like that of a cadaver with some post-mortem discoloration. The lips, tongue, mucous membranes and nails showed marked slaty blue cyanosis. The patient was well nourished and showed no signs of dyspnœa nor evidence of any discomfort. The glands on the right side of the neck were enlarged. Examination of heart, lungs and abdomen showed nothing abnormal. The blood when soaked into filter paper was not red at all, but of a chocolate or mahogany colour. The drop as it stood on the ear was a still darker brown. The blood count showed red corpuscles 5,200,000, white corpuscles 16,000; hæmoglobin could not be tested. Spectroscopical examination showed the characteristic spectrum for methæmoglobin. The urine was brownish red in colour and also showed the methæmoglobin spectrum It contained no hæmatoporphyrin. Examination of the nose showed the presence of polypi; these were removed, but subsequently they were proved to be of malignant nature, and he left the hospital in practically the same state. The most striking point about the case was the good general condition of the patient. In spite of the intense cyanosis and the easily demonstrated methæmoglobinæmia he felt and seemed practically well during the intervals of freedom from pain. His headache tortured him, but his blood condition caused him no inconvenience. There was no disturbance of respiration, circulation, or any other symptom, except the slight evidence of renal irritation which was present from time to time.

Paratyphoid Fever.

Brill (*Medical Record*, November, 1902) read before the New York State Medical Association a paper on this subject. Five years previously he had read a paper dealing with the clinical aspects of a disease which was similar to typhoid fever, and yet differed from it, chiefly in that its subjects did not show the Widal reaction. There are, however, other clinical differences. All are agreed now that this disease is the result of an infection with a bacil'us the position of which is intermediate between the typhoid bacillus on the one hand and the colon bacillus on the other. There are a number of groups or varieties between these two extremes, the one which is considered the cause of this disease being the so-called paracolon or paratyphoid group, of which more than one form, differing among themselves, have been reported. These species are morphologically like the Eberth bacillus, from which, in that respect, they cannot be distinguished, and they possess the same motile characters. Unlike the bacillus typhosus, their reaction in milk presents, after a temporary initial acidity, an early alkalinity in the presence of air. Milk is never coagulated by them. They ferment glucose, with the production of gas. They do not ferment lactose, nor do they produce indol.

The changes in the tissues indicate an acute general systemic infection, without specific localisation. The organs show the usual changes due to toxæmia and continuous pyrexia. The spleen is always enlarged, its pulp soft, and the colour dark. The mesenteric glands are enlarged and sometimes hæmorrhagic; the intestines, with the exception of a slight catarrh or superficial hæmorrhages, are normal. Peyer's patches and the solitary follicles show no change as a rule.

An analysis of the symptoms show that there are two groups of cases, the one showing the usual signs of an infection or toxæmia, with so-called typhoid fever symptoms, accompanied by an involvement of the nervous system; the other beginning more abruptly with gastro-intestinal symptoms, marked chiefly by repeated vomiting and diarrhœa, with fever, which may or may not show the typhoid fever type. The first of these groups is the more common. Brill gives the following points for the differential diagnosis between typhoid fever and paratyphoid fever:— In typhoid fever there are premonitory symptoms of a few days' duration; in paratyphoid there are none. The cases were only ill three or four days before coming under the notice of the physician. In typhoid there are lassitude and loss of energy; in the other group there are general body pains of a severe type associated with these. In typhoid there is no early intense prostration, as a rule; whereas there is such in paratyphoid. Typhoid is characterised by a gradually increasing daily rise in temperature. In the other disease the rise is more sudden, and reaches its acme in from four to five days. In typhoid the highest temperature is in the second week, and at the fastigium the temperature makes but slight remissions; it begins to fall in the third week, and drops to normal by lysis. In paratyphoid there are greater daily remissions, and the fall is sudden, only a few cases showing the descent by

Digitized by Google

lysis. The tongue in typhoid is dry, brown, and furred, sordes being common. In paratyphoid the tongue is moist, and covered with a white fur; no sordes occurs. Abdominal tenderness is common in typhoid, with a certain amount of tympanites. In the other disease these symptoms are not present to any appreciable extent. The pulse in typhoid is frequently dicrotic, but it is not so in paratyphoid. The emaciation is more extreme, and the disease of much longer duration in typhoid than in paratyphoid. Lastly, the blood serum in these cases does not react to the bacillus typhosus. The author concludes that paracolon infections are not rare, 30 cases having been reported last year. The infection is a systemic one, and its symptomatology is like that of typhoid fever, from which it can only be differentiated absolutely by the agglutination and cultural tests. The belief that typhoid fever is a specific disease has existed so long that it would be iconoclastic to disturb its place in medical nosology. The fact, however, remains that typhoid fever is not clinically a specific entity; that organisms besides the Eberth-Gaffky bacillus may produce the clinical symptoms of typhoid fever.

PATHOLOGY.

The Influence of the Spleen on Natural or Acquired Hæmolytic Properties of Blood Serum.

Levin (*Journal of Medical Research*, June, 1902) states that although the spleen is not absolutely essential to the preservation of life, still there are numerous facts, clinical as well as experimental, which seem to indicate that the spleen plays some part in the protection of the body against noxious agents invading it from without. Recent investigations on immunity have proved that the body is able to adapt itself to and subsequently counteract an invasion not only of pathogenic bacteria and their toxines, but also of various kinds of foreign cells or even unorganised matter. The most striking example of such immunity against foreign cells is seen in the acquirement of hæmolytic properties of blood serum. This property of blood serum to dissolve the hæmoglobin from foreign erythrocytes is specific, *i.e.*, certain serum is lytic only for certain erythrocytes, and exists naturally or may be acquired—that is, if an animal receives a few injections of foreign blood, its serum becomes lytic for the erythrocytes of this blood, even if it were not so normally. It has been established as a fact that the breaking up of the erythrocytes is a normal function of the spleen, and hence one might seem justified in assuming that the spleen may have some influence upon the natural or acquired hæmolytic properties of the blood serum. In view of these considerations the author has performed certain experiments on rabbits. To make the blood serum of the animals lytic for erythrocytes of animals of another species he injected defibrinated bullock's blood into the peritoneal cavity of rabbits three or four times at intervals of from three to five days. To test the hæmolytic power of the blood serum of the rabbits he added one part of the serum to four parts of bullock's blood diluted one to ten in physiological salt solution. Blood serum of the immunised animals in the above dilution induced complete lysis in 20 minutes to two hours, while blood serum of a normal rabbit is not at all lytic for bullock's erythrocytes. To test the influence of the spleen on this artificially induced hæmolytic power he performed five series of experiments. *First Series.*—Six rabbits were immunised against bullock's blood, and then the spleen was extirpated. About a week later the serum was tested for its hæmolytic power. The results were uniformly negative; the splenectomy did not appear to have any appreciable effect on the previously acquired hæmolytic power of the rabbits' serum. *Second Series.*—On four rabbits he extirpated the spleen and immediately after it began the immunisation. These experiments showed that a recent splenectomy did not interfere in any way with the acquisition of hæmolytic power. *Third Series.*—On six rabbits he extirpated the spleen, and a few weeks thereafter the animals were immunised. These experiments showed that animals with an old splenectomy were just as easily immunised as normal animals. *Fourth Series.*—He opened the abdominal cavity as for a splenectomy, clamped all the blood vessels of the spleen, then with a hypodermic syringe injected one and a half c.c. of bullock's blood, and finally drew out the needle and ligated the spleen *en masse* at the place of the puncture to prevent the bullock's blood from escaping. About 20 minutes later the clamps were opened, the circulation in the spleen re-established, and the abdominal wound closed. This operation was done on four rabbits, and in none of them was the serum lytic. *Fifth Series.*—To test the influence of the spleen on natural hæmolytic power, he used hen's blood. Blood serum of rabbits is normally lytic for the erythrocytes of the hen. He tested these erythrocytes with the blood serum of splenectomised rabbits. He found that neither a recent nor an old splenectomy impaired the natural hæmolytic power of a rabbit's serum against the hen's erythrocytes.

He concludes that the spleen is not indispensable for the acquired or the natural hæmolytic properties of the blood serum, nor, so far as his experiments went, did it appear to elaborate these substances upon which either the normal or artificial hæmolytic properties of the blood serum depend.

Thrombi composed of Agglutinated Red Blood Corpuscles.

Simon Flexner (*Journal of Medical Research*, November, 1902), in a preliminary communication on this subject, says that the natural occurrence of thrombi composed of agglutinated red corpuscles in human and animal pathology seems not to have been noted, although the conditions of their experimental production often occur in natural diseases, so far, at least, as bacterial infection goes. He has studied the occurrence of thrombi of this nature both in bacterial and non-bacterial diseases, as well as experimentally, and draws the following conclusions:—1. The agglutination of red corpuscles *intra vitam* is not uncommon in infectious disease in man and animals. 2. A special variety of thrombi is produced through this agglutination which may be denominated agglutinative thrombi. 3. When such thrombi are old, or when the agglutination is compact, they may present appearances to which the name of "hyaline thrombi" has been applied. 4. Other alterations of the blood than those arising in infectious disease may bring about agglutinative thrombosis, the nature of this alteration being little understood. 5. Poisons which destroy corpuscles rapidly are provocative of agglutinative thrombosis. 6. The so-called "fibrin ferment thrombi" are probably nothing else than agglutinative thrombi.

Methods of Infection of the Bile by Micro-organisms.

Carmichael (*Journal of Pathology and Bacteriology*, September, 1902) records the results of some experiments undertaken with a view to determine the effect of the injection of micro-organisms into the portal system on the sterility of the bile in the gall-bladder. Three different kinds of micro-organisms were used:—1. Typhoid bacilli were used in one animal. Five minims of the emulsion of the bacilli were injected into the

Digitized by Google

superior mesenteric vein. The animal was well on the fourth day, and the bile was perfectly sterile, as proved by the negative cultivation results. 2. Bacilli coli communes were used in three cases. In two of these the animals were killed within 12 hours of the operation, and in both the bile was absolutely sterile. In the third the animal died on the same night from acute peritonitis of the upper part of the abdomen, and from the fact that 12 hours elapsed before the examination of the bile was made it is possible that the infection of the bile, as proved by the copious growth on inoculation, may have resulted post-mortem. 3. Streptococci were injected into the superior mesenteric vein of one animal. The bile remained absolutely sterile. 4. In all these experiments, with the exception of one, after injection of micro-organisms into the portal circulation in varying quantities from five minims upwards the bile remained in its normal condition, thus supporting the theory of Sherrington that although the general blood circulation be teeming with micro-organisms none can pass through normal hepatic tissue. This statement might also be applied to the portal circulation, as shown by the above recorded experiments.

It is probable, therefore, that infection of the bile from the gastro-intestinal tract does not take place through the portal vein and liver when one considers that the concentration of micro-organisms passing along in the portal blood is very much less than that of the emulsion injected into the vein. There are thus only two methods of infection of the gall-bladder—either by direct extension from the intestinal tract itself, or by infection through the general blood stream to the cystic artery; and the observations of Sherrington tend to disprove this latter view.

PÆDIATRICS.

The Etiology of Summer Diarrhœa in Children.

At a meeting of the Medical Association of New York in October last, Dr. Simon Flexner gave an address on the subject of "Infection with the Bacillus of Dysentery with special reference to its rôle in the Summer Diarrhœas of Children." This is reported in the *Boston Medical and Surgical Journal*, November, 1902. Flexner states "that the study of the causation of dysentery has tended more and more to the conclusion that there is a specific organism constituting the etiological factor in the great majority of intestinal infections which go by the name of dysentery. Such a distinctive bacillus dysenteriæ was made known to the world in 1898 by Shiga of Japan. This bacillus is never found in the intestines in a state of health; it is present in various types of dysenteric disease; animals may be inoculated with the disease by cultures from it, and agglutinative reactions may be obtained with it which cannot be secured from any other organisms found in the intestines. During last summer, under the auspices of the Rockefeller Institute, the conditions met with in the summer diarrhœas of children were carefully studied at the sanatorium near Baltimore by Duval and Bassett, of the University of Pennsylvania and Johns Hopkins University. At the beginning of the study they endeavoured to obtain from the dejecta as many organisms as possible. All of these they tested with the blood serum of the sick children, and in no instance than in the case of the Shiga bacillus was the agglutinative reaction observed. All the other organisms found resisted the tests applied to them. The cases were characterised by an acute onset, elevation of temperature, and the presence in the fæces at some stage of mucus and blood. The organism was found in all cases, with few exceptions, in which the disturbances were severe; in other cases where the disturbances were slighter in degree the bacillus was not found. Some of these milder cases, however, afterwards became of a severe type, and then the bacillus was found. The conclusions arrived at were that this bacillus is a stranger in the system, and that its etiological relation to the disease met with is shown by its presence, its constancy, and the peculiar blood reaction obtained from it. This organism has important relations with the colon bacillus and the great typhoid group in general, but it has its own distinctive individuality. It more closely resembles the typhoid bacillus than any other, and yet in the disease in question the characteristic agglutinative reaction could never be obtained with the latter. These discoveries seem likely to have important relations to the prevention of infection, and also to its successful treatment. In the matter of prevention, while nothing positive is known, there is indirect evidence that the organism is associated with the contamination of water, and that it gains access to water like the organisms of typhoid and cholera. Like these it is easily destroyed, and is killed by a temperature much below boiling point. As regards treatment, hope lies in the production of a serum. In doubtful cases the blood can be tested for the agglutinative reaction, which always occurs within the first 10 days if at all. In active cases it is best not to wait for the blood reaction, but to immediately examine the dejecta for the bacillus which may be looked for after the first 24 or 36 hours." In the discussion which ensued on this paper reference was made by Herter to the marked benefit which ensued on the use of a serum prepared by Flexner in a desperate case of summer diarrhœa in a child.

Cyclic Vomiting.

Ely (*Proc. Phil. County Medical Society*, September, 1902) describes some cases of this nature, and discusses the etiology and diagnosis. The differentiation of the causes of vomiting in children frequently presents difficulties. The distinctive feature of this cyclic vomiting, which is a gastric neurosis, is that it occurs in a certain type of gouty and neurotic children, and is like migraine in its tendency to recurrence or periodicity. The vomiting is excessive and protracted, nothing being retained by the stomach; thirst is distressing; there is no connection in an attack with diet or digestion; the abdomen is generally normal in appearance, and the abdominal symptoms are varied; there may be constipation. The urine presents the most distinctive feature, being loaded with amorphous urates and uric acid crystals entirely out of proportion to the fever and other phenomena. The following are the points of distinction between ordinary bilious vomiting and cyclic vomiting:—

Bilious Vomiting.	*Cyclic Vomiting.*
1. History of improper feeding.	1. No such history; may occur with most careful diet, with no symptoms of indigestion.
2. Unloading bowels relieves.	2. No such effect.
3. Tongue coated.	3. Tongue may be clean.
4. Breath heavy.	4. Breath late in the attacks may have odour of acetone; otherwise normal.
5. Abdomen distended.	5. Abdomen normal.
6. Abdominal pain and colic.	6. As a rule none.
7. Stools often clayey.	7. Stools generally normal.
8. Urine ordinary febrile.	8. Urine scanty and loaded with uric acid crystal and amorphous urates.

The phenomena of cyclic vomiting are apparently due to some toxic blood state, the exact toxin being

Digitized by Google

unknown, though probably it belongs to the xanthine series. The treatment of this condition consists in elimination either by calomel or repeated doses of saline solution or milk of magnesia at the beginning of the attack. The irritability of the vomiting centre can be allayed by bromides and chloral by the rectum, or hypodermics of morphia and atropine. No other medicine or food should be given by the mouth. Nutrient enemata may be given if required.

PUBLIC HEALTH.

New South Wales.

Health of Sydney.—The number of deaths to be debited to the metropolis during January was 539. The average number in the corresponding month during the five preceding years was 525, corresponding to an annual death rate of 12·1 per 1000 inhabitants, or, more correctly, 12·07 per 1000. The deaths for the month from diarrhœal diseases (including diarrhœa, dysentery, enteritis, and infantile cholera) number 133, as against an annual average for January during the previous five years of 97. This is a very considerable increase, and may probably be regarded as being largely due to the high temperatures experienced at the beginning of January and the end of the preceding month. The total number of infantile deaths for the month is lower than usual, and amounts to 143, while the average for January in five years, 1898-1902, was 169. The deaths from typhoid fever number seven, which is less than in any January during the past ten years. Six deaths were registered in the metropolis from scarlet fever, as against a quinquennial average for the corresponding month of 1½. 213 cases of scarlet fever were notified, which is a larger number than that experienced in any January since the year 1898. Four deaths from diphtheria occurred during the month, the average for the corresponding month of five years being 1·6 deaths. 48 cases of the disease were notified, as against an average number of 29 notified in January during the five preceding years. From phthisis 42 deaths occurred, the monthly average for January for five years being 42·6 deaths. Bronchitis, pneumonia, and other respiratory diseases were rather less fatal than in previous years. They caused 32 deaths in the month under review, as against an average of 38 for January in the five preceding years. No deaths were registered from measles or influenza. Whooping cough caused two deaths, as against a five-year average for the month of 15 deaths.

The Bubonic Plague.—The announcement that the bubonic plague has reappeared in Brisbane has caused the Board of Health to revive the stringent regulations that were formerly enforced in the case of vessels arriving from the capital of the northern State when the plague first broke out there.

Victoria.

The Bubonic Plague.—The machinery for preventing the introduction of plague into Victoria has been in existence ever since the outbreak about three years ago. In the case of vessels arriving from Fremantle, where several cases of plague have recently occurred, this machinery has been put in operation. The chairman of the Board of Health states that arrangements have been made for medically examining the company—crew and passengers—of every ship arriving in Melbourne from the infected port.

Infectious Diseases.—The return of infectious diseases, presented at the meeting of the Public Health Board on February 4th, showed a decided increase in scarlet fever cases and a considerable falling off in the number of typhoid fever cases. For the whole State, the typhoid cases numbered 110 and 7 deaths, as compared with 171 cases and 4 deaths during the corresponding period of last year; whilst for the metropolitan area there were 32 cases and 3 deaths, as against 91 cases and 3 deaths in 1902. The diphtheria cases for the whole State were 34 and 3 deaths, as compared with 46 cases and 3 deaths last year; the figures for the metropolitan area being 15 cases and no deaths, as against 9 cases and no deaths last year. Of scarlet fever cases there were 97 and 3 deaths in the whole State, as against 13 and 1 death in 1902; the number in the metropolitan area being 70 cases and 1 death, as compared with 8 and no deaths last year.

A by-law to prevent spitting on the footways of streets and the throwing of fruit and vegetables on the paths was passed by the Melbourne City Council at its meeting on February 8th.

A Milk Supervision Bill.—A Milk Supervision Bill has for some considerable time past been under consideration by the Board of Public Health. The measure generally provides for thorough cleanliness throughout the milking trade. Power is given to make regulations concerning the milker, the cow to be milked, the animals about the dairy farm, the milking shed, the dairy, the men engaged on the dairy farm and in the milk shop, the utensils and vehicles used in the transmission of the milk to the consumer, and inspection by municipal councils. Dairymen must furnish the councils at regular intervals with certificates from duly qualified veterinary surgeons as to the condition of their cattle. Officers of health are specially required to make inspection of all dairies and milk shops within districts over which they severally act at regular intervals and at such other times as may be required. The bill also gives power to councils and to the Board of Health to absolutely forbid the use of a cow or cows for milking purposes for human consumption whenever, in the opinion of a council or the board, such cow or cows are likely to yield unwholesome milk. The board or the council is the final arbiter in deciding whether or not the milk of a cow is wholesome. The adulteration question is completely dealt with in the bill. A drastic and comprehensive clause prohibits the selling under the name of milk or entire milk, or other name indicative of changed milk, any article of diet which is not absolutely the unchanged product of the udder of the cow. Such a sweeping and effective provision as this, of course, obviates the necessity of disallowing the addition of specific ingredients. The general prohibition covers everything possible in the way of adulteration. There is, however, a modifying clause allowing the addition of ingredients by order in council, on the recommendation of the Board of Health. The board is empowered to fix standards for milk and milk products. This is the universal custom in England, and in practically all the important centres of population in Europe. The whole of the foregoing provisions have been determined upon, but a special meeting of the board will give further consideration to the draft bill. It is desired to place the draft bill before the Minister of Health at an early date, in order that it may be dealt with by the Parliamentary draftsman as soon as possible, and Dr. Gresswell is hopeful that the Government will introduce it in the Assembly at an early date.

Digitized by Google

West Australia.

The Bubonic Plague.—The plague patients at the Quarantine Station are progressing favourably. More infected rats have been discovered in Fremantle.

Queensland.

Bubonic Plague in Brisbane. — Plague-infected rats were found in Brisbane on February 6th, and on February 7th a case of plague was reported. The patient, a man, aged 26, residing at Upper Paddington, was in a critical condition, and too ill to be removed to the plague hospital. Dr. Ham, the Health Commissioner, expressed no surprise at a recurrence of the plague, for he said, "I expected it back in February all along."

PERSONAL ITEMS.

The resignation of Dr. P. Ward Farmer as hon. anæsthetist of the Melbourne Hospital was accepted with regret by the committee of management on January 27.

Dr. M. O'Gorman Hughes, of Paddington, N.S.W., was married on January 24th to Miss Lizzie Hughes, daughter to the late Hon. John Hughes, M.L.C.

Dr. Chas. Rowley, of Otahuhu, N.Z., returned after a visit to the old country of eleven months' duration. He has obtained the M.R.C.P. of Edinburgh.

Dr. J. Hardie Neil, who was for some time on the staff of the Auckland Hospital, has commenced practice in that city.

Dr. Wheeler, lately of Rawene, Hokianga, has commenced practice at Clevedon, Wairoa South.

Dr. A. H. Porter, who has practised for many years in Waihi, has gone to England as surgeon to one of the direct steamers sailing from Wellington. It is his intention to return to New Zealand in about a year, and to practice in Auckland.

Dr. Hugh M. Anderson, late resident medical officer at the Sydney Hospital, has settled at Cootamundra, N.S.W.

Dr. R. T. Michell has removed from Wee Waa to Blayney, N.S.W.

Dr. J. C. Morton was tendered a complimentary smoke night by the members of the Loyal Broadford Lodge, M.U.I.O.O.F., Victoria. Dr. Morton, who is the medical officer to the lodge, as well as being a member, has been for some time suffering from the result of an accident.

Dr. F. C. S. Shaw is leaving the Emmaville district. At a meeting of the Hospital and Medical Association Dr. Shaw's resignation was accepted with regret.

Dr. Allen Muscio, lately resident medical officer at Prince Alfred Hospital, was elected medical officer to the Vegetable Creek Hospital and Emmaville Medical Association.

Dr. E. McM. Glynn, who in May last left Kapunda, S.A., on a visit to the Continent and Ireland, returned by the "Ophir" and came on to Kapunda the same evening. He had a most enjoyable trip, and has benefited considerably in health. At Christ Church Parish Room, a few friends extended to him a "welcome home," and advantage was taken of the occasion to bid farewell to Dr. Percy Shackell, who has been acting with Dr. W. Myles during the doctor's absence.

Dr. Horace P. Godfrey has commenced practice at North Sydney.

Dr. C. F. Ponder has left Tasmania and returned to Glasgow, Scotland.

Dr. Gunning, of Narracoorte, is the oldest medical practitioner in South Australia. He obtained the qualification of L.R.C.S. (Edin.) and L.Mid. (Glasgow) before Queen Victoria came to the throne.

Dr. Crawford, recently assistant house surgeon at Christchurch Hospital, has been appointed house surgeon of Wanganui Hospital, N.Z.

The second lady doctor who has commenced to practice in Wellington is Dr. Isabel Watson, who has just arrived from England. Dr. Watson is practising as a specialist for women and children only, and has taken rooms in Willis-sreet.

Dr. E. M. Humphery has succeeded to the practice of Dr. Mackay at Maclean, Clarence River, N.S.W.

At the annual meeting of the Walgett Hospital, New South Wales, Dr. Franceschi was reappointed medical officer at £200 per annum, with £100 additional, so long as he has a duly qualified medical practitioner as an assistant.

Dr. M. L. Cameron, of Grafton, has taken Dr. Earle Page, late house surgeon, Prince Alfred Hospital, and at present acting pathologist to that institution, as a partner. Dr. Page will leave for Grafton at the end of February.

Dr. E. B. Ormerod has resigned his appointment as Government medical officer at Thornborough, Queensland.

Dr. E. L. Hickey has resigned his appointment as Government medical officer and vaccinator at Nyngan, New South Wales.

Dr. R. S. Rogers has been reappointed a visitor to the Parkside Hospital for the Insane, Adelaide, S.A.

Dr. McIntyre Sinclair, late assistant medical officer to the Cotswold Sanatorium, Gloucestershire, England, who has been appointed medical superintendent to the new sanatorium, King's Tableland, Blue Mountains, N.S.W., in connection with the Queen Victoria Home for Consumptives' Fund, has arrived from England and entered upon his duties.

Dr. Emma Constance Stone, of St. Kilda, Victoria, doctor of medicine, who died on December 29th, left personal property valued at £2455, which was bequeathed to her husband, daughter and relatives.

Dr. Cedric V. Bowker, who has held the position of superintendent of the Sydney Hospital for the past two years, has resigned his appointment to take up private practice. In the drawing-room of the hospital on February 6th, Dr. Bowker was presented with a handsome spirit stand on behalf of the matron and nursing staff, and with a clock on behalf of the male employees of the institution. Dr. Corbin, in making the presentations, referred to the good feeling that existed between Dr.

Digitized by Google

Bowker and the staff, and wished him every success in the future. Dr. Bowker briefly replied, and thanked the nursing staff and the employees for the loyalty that had always been shown towards him.

Dr. Mackay, who is leaving Maclean, New South Wales, for Lismore, was tendered a banquet prior to his departure, accompanied by a purse of sovereigns.

At an entertainment given by the inmates of the Liverpool Asylum in honour of his return from India, Dr. J. A. Beattie, the medical superintendent, was presented with an illuminated address by the officials and inmates.

Dr. Thane was unanimously re-elected Mayor of Yass on 12th inst. In the evening he gave a banquet to the aldermen.

Dr. P. J. Godfrey, late hon. surgeon Zeehan and Dundas and Strahan Hospitals, has commenced practice at Glenview, Glenorchy, Tasmania.

Dr. A. E. Fitzpatrick, late of Glebe, has removed to Crookwell, N.S.W.

Dr. Charles Maxwell has been appointed medical superintendent of the Burketown Hospital, Queensland.

Dr. R. Vandeleur Kelly, C.B., has left Bombala, and has been appointed medical officer to the Trial Bay Prison.

Dr. W. Atterbury, of Catherine Hill Bay, N.S.W., has left for England.

MEDICAL NOTES.

Charitable Donations.—Professor Anderson Stuart has received the following letter with a cheque for £50 from Vice-Admiral Sir Lewis Beaumont:—"Lady Beaumont and I have been thinking how we could in our small way show our gratitude for all the kindness we have received from Sydney during the two years we have been here. Our choice has fallen upon the Queen Victoria Memorial Pavilions, Prince Alfred Hospital, the foundation of which we saw laid, and the importance and need of which we have realised since we went over Prince Alfred Hospital. Will you, therefore, as chairman, accept the enclosed cheque for £50 with our best wishes in aid of the completion of the pavilions."—The late Mr. Walter Newman, of Auburn, Victoria, has made a bequest of £25 to the Children's Hospital, Melbourne.

The Presidents of the Sydney Hospital.—Three large, handsomely-framed photographs have been recently presented to the board of directors of the Sydney Hospital of the three presidents of the institution. First to fill the position was Mr. Alex. McLean, M.L.C. (1826-1848), who was followed by Sir Edward Deas-Thomson, M.L.C., C.B., K.C.M.G. (1848-1879). The existing president (Sir Arthur Renwick) has held the position since the latter date.

Queen Victoria Homes for Consumptives.—At the last meeting of the committee of the Queen Victoria Homes for Consumptives it was announced that the new sanatorium at King's Tableland, Wentworth Falls, was to be opened by his Excellency the Governor on the 18th of this month. The secretary reported that Dr. McIntyre Sinclair, who had been selected for the position of resident medical officer at the sanatorium, had arrived from England. He had been up to the home, and was well pleased with the appointments. It was decided to build a crematorium for the destruction of expectoration at a cost of £52. The resignation of Miss Sly, matron of the Thirlmere Home, had been received, and advertisements calling for applications for the post had been inserted in the daily papers. The hon. secretary submitted his draft report for the annual meeting, at which the Lord Mayor had consented to preside.

Zetz-Spa Table Water.—We have received from Messrs. Tooth & Co., Limited, samples of the above-named water, which is a natural mineral water derived from the "Zetz" Spring, Ballimore, New South Wales. It is a very palatable water, highly charged with carbonic acid gas, resembling ordinary soda water in taste and appearance. In its chemical composition it resembles Vichy water (Celestine). (See report of analysis by Dr. Helms in our advertising columns.) We think that this water is likely to take a prominent place as a table water and as a diluent of milk and other stronger beverages.

Powdered Milk.—In a French review Dr. Caze describes the labours of Dr. Campbell, of Pennsylvania, which have resulted in reducing milk to powder. We may now always have enough milk in our hospitals, even in the hottest climate. Dr. Campbell has occupied three years in experiments, and spent £20,000, and now powdered milk is a regular article of commerce.

The board of directors of the Sydney Hospital Saturday Fund have fixed Saturday, May 2nd, as the date of the tenth annual outdoor collection.

On Friday, February 6th, the first anniversary of the opening of the Michaelis ward for young children in the Alfred Hospital, Melbourne, Mr. F. D. Michaelis, on behalf of the family, handed to the hospital superintendent, Mr. R. C. Norman, a cheque for £100 in token of their appreciation of the good work done.

MEDICAL APPOINTMENTS.

NEW SOUTH WALES.

Sydney Hospital.—The following gentlemen were appointed to the undermentioned positions at the Hospital viz.:—Dr. A. G. Corbin, Medical Superintendent, *vice* Dr. C. V. Bowker, resigned; Dr. Combes, First Senior Resident Medical Officer; Dr. Tange, Second Senior Resident Medical Officer; Dr. Ambrose, Resident Pathologist.

Broad, William, M.B., B.S. (Glas.), to be Visiting Medical Attendant to the Warangesda Aborigines Station.

Bourke, C. V., M.B., Ch.M. (Syd.), to be Honorary Assistant Gynæcologist, Sydney Hospital.

Forster, R. C. H., M.B. (Syd.), to be Government Medical Officer and Vaccinator at Narramine, *vice* Dr. G. H. Rowland, resigned.

Read, W. H., M.B., Ch.M. (Syd.), to be Registrar and Anæsthetist, Hospital for Sick Children, Sydney.

Roseby, E. R., M.B., Ch.M. (Syd.), to be Government Medical Officer and Vaccinator at Nyngan, *vice* Dr. E. L. Hickey, resigned.

Willis, H. A. L., L.R.C.P. (Lond.), M.R.C.S. (Eng.), to be Government Medical Officer and Vaccinator at Gunning, *vice* Dr. Henry J. Leonard, resigned.

Digitized by Google

VICTORIA.

Beckett, T. G., L.R.C.P. & S. (Edin.), L.S.A. (Lon.), to be Honorary Medical Electrician, Alfred Hospital, Melbourne.

Joske, A. S., M.B., Ch.B. (Melb.), to be Honorary Surgeon, Children's Outdoor Department, Alfred Hospital, Melbourne.

Player, C. R., M.B., Ch.B. (Melb.), to be Honorary Physician, Children's Outdoor Department, Alfred Hospital, Melbourne.

SOUTH AUSTRALIA.

Clarke, Philip S., M.B., to be Resident Medical Officer of the Children's Hospital, Adelaide, *vice* Dr. Margaret White, resigned.

Fischer, G. A., M.B. & B.S., to be Honorary Surgeon to the Department of Diseases of the Ear and Throat at the Adelaide Hospital.

Morris, B. H., M.B., B.S., Medical Officer to the Destitute Persons and State Children's Departments, to be also Medical Officer to the Yatala Labor Prison, *vice* Dr. Brookes, deceased.

QUEENSLAND.

Dods, J. E., M.B. (Edin.), to act as Health Officer for the Port of Brisbane during the absence of the Health Officer.

WEST AUSTRALIA.

Darbyshire, Dr., to be Officer of Health, Peppermint Grove.
Dean, Dr. E. C., to be a Visiting Justice to the Gaol at Bridgetown.
Macaulay, Dr. Samuel, to be Acting Health Officer, Perth, *vice* Dr. O'Connor, temporarily absent.
Stewart, Dr. J. E. F., to be Officer of Health, Guildford, *vice* Dr. J. M. Y. Stewart, resigned.

PROCEEDINGS OF AUSTRALASIAN MEDICAL BOARDS.

NEW SOUTH WALES.

Corfe, Anstruther John, M.B. (Syd.) 1903.
Crozier, William, L. *et* L. Mid., K.Q.C.P. (Irel.), L.R.C.S. (Irel.) 1877.
Dansey, St. John Warburton, M.B. (Syd.) 1903.
Davis, James Sheddon, M.B. (Syd.) 1903.
Hipsley, Percy Leslie, M.B. (Syd.) 1903.
Humphery, Esca Morris, M.B. (Syd.) 1903.
Kennedy, John Timothy, L.R.C.P. (Edin.) 1888, L.R.C.S. (Edin.) 1888, L.F.P.S. (Glas.) 1888.
MacLeod, Roderick Alexander, M.B., M.S. 1887, M.D. (Glasg.) 1901.
Mason, Thomas William, M.B. (Syd.) 1903.
Newman, Ernest Ludlow, M.B. (Syd.) 1903.
Plomley, Morris James, M.B. (Syd.) 1903.
Robertson, Lionel Joseph, M.B. (Syd.) 1903.
Rogers, Reginald James, L.R.C.P. (Lond.) 1897, M.R.C.S. (Eng.) 1897.
Smith, Stewart Arthur, M.B. (Syd.) 1903.
Suckling, Frank Martin, M.B. (Syd.) 1903.
Thomson, Jack Mowbray, M.B. (Syd.) 1903.
Waugh, Richard Andrew Phipps, M.B. (Syd.) 1903.
Williams, Frederick Bernard, M.D. (Trinity Univer., Toronto) 1901.
Woolnough, Robert Edmund, M.B. (Syd.) 1903.

SOUTH AUSTRALIA.

Caw, Alexander Ruan, M.B., B.S. (Ade.) 1902.
Clayton, Arthur Ross, M.B., B.S. (Ade.) 1902.
Cleland, John Burton, Ch.M. (Syd.) 1900; M.D. (Syd.) 1902.
Mayo, Helen Mary, M.B., B.S. (Ade.) 1902.
Muecke, Francis Frederick, M.B., B.S. (Ade.) 1902.
Wells, Clement Victor, M.B., B.S. (Ade.) 1902.

QUEENSLAND.

Hope, Edward Culbertson, M.R.C.S. (Eng.) 1896, L.R.C.P. (Lond.) 1896.
Hollick, Hubert Harry, M.R.C.S. (Eng.) 1899, L.R.C.P. (Lond.) 1899.
Kerwin, Patrick James, L.R.C.P. & S. (Edin.) 1901, L.F.P.S. (Glasg.) 1901.

TASMANIA.

Triado, Antonio Joseph James, M.B. (Melb.) 1901, Ch.B. (Melb.) 1902.
Wilson, Tasman John George, M.B. (Edin.) 1900, B.S. (Edin.) 1900.

BIRTHS, MARRIAGE AND DEATHS.

BIRTHS.

CLUBBE.—On the 3rd February, at "Wiston," Darling Point, the wife of Charles P. B. Clubbe—a son.

SMITH.—On the 21st January, at Morwell, Gippsland (Vic.), the wife of Julian Smith, M.D.—a son.

MARRIAGE.

OFFICER—FLEETWOOD—On the 19th December, at Christ Church, Warrnambool, by the Ven. Archdeacon Beamish, assisted by the Rev. Canon McGeorge, George John, sixth son of the late John Officer, of Lipook, Warrnambool, to Ruby Eliza, eldest daughter of T. F. Fleetwood, M.A., M.B., F.R.C.S.I., of Ierne, Warrnambool.

DEATHS.

BROOKES.—On the 11th January, at Salisbury, Adelaide, South Australia, Dr. Edward Brookes, youngest son of the late Benjamin and Margaret Brookes, formerly of Brisbane, aged 34 years.

RORKE.—At his residence, La Vista, Walker-street, North Sydney, Dr. Charles Rorke, beloved husband of Josephine Rorke, and fourth son of the late Andrew Rorke, formerly of Kilcarty, County Meath, Ireland. R.I.P.

BOOKS RECEIVED.

Atlas and Epitome of Abdominal Hernia. By Dr. Georg Sultan (Gottengen). Edited by Wm. B. Coley, M.D., with 119 illustrations, 36 of which are in colours. Philadelphia and London: W. B. Saunders. Melbourne: James Little. 1902. Price, 15s.

Text-Book of Surgical Diseases of the Face, Mouth and Jaws, For Dental Students. By H. Horace Grant, M.D. Octavo volume, 231 pages. Price, 12s 6d. Illustrated. Philadelphia and London: W. B. Saunders. Melbourne: James Little.

Atlas and Epitome of Traumatic Fractures and Dislocations. By Professor Dr. H. Helferich. Edited by J. C. Bloodgood, M.D. Fifth edition. With 216 coloured illustrations, 353 pages of text. Philadelphia and London: W. B. Saunders & Co. Melbourne: James Little. 1902. Price, 15s.

First Aid to the Injured and Sick. By F. J. Warwick, M.B. Cantab; and A. C. Tunstall, M.D., F.R.C.S., Edin. 16 mo, 232 pages, nearly 200 illustrations. Philadelphia and London: W. B. Saunders & Co. Melbourne: James Little. 1901. Price, 5s.

Diseases of the Skin. By H. W. Stelwagon, M.D., Ph.D., Professor of Dermatology Jefferson College, Philadelphia. Octavo volume, 1125 pages, 220 illustrations, 26 half-tone plates. Price, 30s. Philadelphia and London: W. B. Saunders & Co. Melbourne: James Little.

Golden Rules of Refraction. By Ernest E. Maddox, M.D., F.R.C.S., Edin. Bristol: John Wright & Co. London: Simpkin, Marshall, Hamilton Kent & Co., Ltd. Price, 1s.

HUDSON'S "EUMENTHOL" JUJUBES (Registered) are a Gum Jujube containing the active constituents of well-known Antiseptics, Eucalyptol, Thymus Vulg., Pinus Sylvestris, Mentha Arv., with Benzo-Borate of Sodium, etc., and exhibit the antiseptic properties in a fragrant and efficient form. Sold by all chemists; tins, 1s 6d. Are Antiseptic, Prophylactic, reduce Sensibility of Mucous Membrane.

Mr. W. A. Dixon, F.I.C., F.C.S., Public Analyst of Sydney, after making exhaustive tests, says:—"There is no doubt but that 'Eumenthol' Jujubes have a wonderful effect in the destruction of bacteria and preventing their growth. . . . I have made a comparative test of 'Eumenthol' Essence and Creosote, and find that there is little difference in their bactericidal action."

Digitized by Google

AUSTRALASIAN MEDICAL GAZETTE.

PTOMAINE POISONING.

By B. Burnett Ham, M.D., Commissioner of Public Health, Brisbane.

WHEN I was honoured with a request from the secretary to read a short paper on "Ptomaine Poisoning" before the Association I readily consented, for several reasons. In the first place the disease is one of importance to both health authorities and the medical profession at the present time, in view of the recent cases and deaths which have occurred in Brisbane. Secondly, the subject matter is not easy to collate, embracing as it does so many departments of specific knowledge — physiology, bacteriology, chemistry and experimental medicine—that any interchange of ideas, any mutual discussion on a subject admittedly difficult of classification, cannot but tend to throw some light upon it. Thirdly, the matter of ptomaine poisoning has come before me officially in such a variety of ways that, without being able to place before you any very recent ideas of others, or original work of my own, I am, however, influenced to bring under your notice a number of facts in connection with the disease known as "ptomaine poisoning," and endeavour to gather from them such instruction as they may be able to afford.

In a recent report to the Government of this State on an outbreak of alleged ptomaine poisoning at Brisbane, in November of last year, I endeavoured to deal with the subject from a public health standpoint, showing how various food stuffs may become poisonous in the course of their storage, preparation and disposal; the influence of insanitary surroundings upon food; the methods of preparation; the sources of contamination; and the preventive measures and sanitary regulations to be enforced in the manufacture and sale of food preparations.

In this short essay I propose to review the question rather from the medical or medico-chemical aspect, and to briefly indicate the classification and composition of ptomaines, the nature and products of putrefaction, the important part played by micro-organisms, the diagnosis and clinical features of ptomaine poisoning, together with a brief *précis* of some of the more serious outbreaks of food-poisoning in England and elsewhere.

A common but oft-repeated saying is "What is one man's food is another man's poison." There is a profounder philosophy in this rather vulgar maxim of the man in the street than meets the eye or catches the ear. By it scientists seek to explain the vague idiosyncrasies and temperaments of certain persons to certain articles of diet, especially to certain kinds of fish in those peculiar cases of fish poisoning. The outbreaks of an illness on a large or serious scale, following the ingestion of various food stuffs, certainly cannot be ascribed either to temperament or idiosncrasy on the part of the persons so affected.

The clinical features in these cases is fairly constant, viz., a gastro-enteric disturbance characterised by diarrhœa, vomiting, and colic. These symptoms may be accompanied or preceded by febrile and nervous disturbances and present a character which we, as medical practitioners, have for long described by the loose and vague term "ptomaine poisoning." That such a term has been frequently applied to many cases of isolated deaths which have occurred after the consumption of some particular kind of food there is no doubt, though subsequent investigation of the incriminated foodstuff showed the symptoms to be entirely due to the presence of a metallic poison accidentally added to the food in question.

Taylor, in his work on the "Principles and Practice of Medical Jurisprudence," describes the case of a whole family, consisting of a large number of persons, who were affected with symptoms resembling irritant poisoning after having partaken of a hare which had been stewed in a clean earthenware vessel. In the vomited matters were found putrefactive products, but no mineral poison, although the symptoms as described were exactly like those occasioned by arsenic. To take the converse—the cases of poisoning by arsenic. Such cases of arsenical poisoning may run the risk of being entirely overlooked in our somewhat natural tendency to follow the prevailing fashion of diagnosing the disease in season. Appendicitis, influenza, neurasthenia and ptomaine poisoning all have their day.

Let us not forget that Nature's most appropriate remedy for all gastro-intestinal irritation, whether due to the presence of toxic metallic sorts, the presence of ptomaine, or alkaloids resulting from putrefaction or fermentative changes, or albumoses and poisonous proteids produced by bacterial agencies, is, more or less, copious vomiting and diarrhœa.

When the certain and various conditions by which different food stuffs may become

Digitized by Google

possessed of poisonous properties is borne in mind, as, *e.g.*, by the addition of substances intended as adulterants or preservatives; to infection with certain parasites or their ova; to food conveying a true infection; to poisons developed in and from the food by bacterial agencies; to some poisonous substances accidentally derived from the vessel in which the food is contained, and many other causes some of which are as yet imperfectly understood—when all these sources are kept in view, surely the vague and loose term "ptomaine poisoning" should give place to a more correct nomenclature, to the more intelligible name of "food poisoning." To classify the poisonous results due either to a toxic metallic salt, a ptomaine, a leucomaine, an albumose, or a toxin under the heading "ptomaine poisoning," is as unscientific as it is unintelligible. It may, of course, be argued that the term "food poisoning" is vague and more indefinite still, but such epithet at least allows the physician to guard himself behind his diagnosis, leaving it to the analyst, chemist, bacteriologist, and food expert to state what the nature of the particular poison, if any, may be. But what are ptomaines, and what is their relation to disease? The word *ptomaine* is derived from Greek *ptoma*—a dead body. It has long been known that the products of putrefaction are poisonous, and that the decomposition of organic substances is caused by the growth of microbes. In the decomposition process various products, *e.g.*, leucine, tyrosin, indol, skatol, etc., are formed. O.H.N. are set free, whilst H_2S, CO_2, NH_3 are formed by combination. Some of the bases formed are very poisonous, producing symptoms resembling those caused by strychnine, atropine, etc. The ptomaines are bases of the nature of alkaloids formed in the putrefying proteid matter by the action of bacteria.

"Leucomaine" was the term applied by Gautier to those alkaloidal or basic substances elaborated in the body during life as the result of fermentative changes within the body, or of the natural physiological processes in the cells, or by retrograde changes in the nitrogenous tissues. Hence, leucomaines are called the "physiological alkaloids," but they are so closely allied to ptomaines that it would be preferable, as Luff has suggested, to class ptomaines and leucomaines under the one category.

History.—In 1856 a Danish chemist (Pannum) showed that aqueous extracts from decomposing animal matter contained poisonous substances which he thought to be of a purely chemical nature. His results were confirmed by German chemists, but the chemical nature of the substances was not determined.

In 1868 a crystalline basic substance giving the reaction of alkaloids was isolated from decomposing flesh by two German chemists, Bergmann and Schmiedeberg.

In the year 1874 Selmi definitely announced that he had discovered basic substances resembling the vegetable alkaloids formed during putrefaction, and gave them the name of "ptomaine." In 1877 this chemist finally came to the conclusion that these substances were poisons or "toxines" produced by the action and growth of bacteria. Gautier (1881) and Brieger (1883) made extensive and elaborate researches, and a large number of well-defined ptomaines have now been isolated.

In 1885 Vaughan isolated tyrotoxicon from poisonous cheese, and it is now well recognised that the ptomaines are the products of the activity of micro-organisms. Creatinine, discovered in urine by Liebig and Pettenkoffer, was the first body of animal origin acknowledged to be an alkaloid

The first ptomaine separated pure was obtained by Nencki; then Brieger obtained several of these alkaloids from pure cultivation of micro-organisms. Brieger also first described the substances that he was able to obtain from pure cultures of the typhoid bacillus and of the tetanus bacillus. "In 1882 Bouchard demonstrated that, not only were alkaloids present in appreciable quantities in normal urines, but that they augmented notably in the course of certain maladies—typhoid fever, for instance."

"Some of the most deadly of the poisons formed by micro-organisms," says Sims Woodhead, "are not of the nature of alkaloids, but are said to belong rather to the classes of globulins and albumoses." Brieger includes under the term ptomaine all nitrogenous bases that are formed by the action of bacteria, such of those as are poisonous being spoken of as toxines.

The common ancestor of alkaloids, whether animal or vegetable, is albumin, and through bacterial agency or otherwise this complex molecule is split up into several less complex molecules, among which are the animal alkaloids or ptomaines. Some of these ptomaines are volatile and amorphous, but form crystalline salts with the acids, and some so closely resemble the vegetable alkaloids, *e.g.*, nicotine, morphine, atropine, digitaline, etc., that serious mistakes have been made by chemists confounding these vegetable alkaloids with the putrefactive alkaloids. The latter, however, do not possess the same physiological properties as the former and probably do not respond to the chemical reactions, though no reliable tests exist.

Digitized by Google

Ptomaines vary considerably in their physiological action, some being quite inert, others extremely fatal even in small doses. "Very little seems to be known of the effects of individual ptomaines upon man." The symptoms of ptomaine poisoning also vary in kind and degree. What part the ptomaines play, and what part the toxins, and how far the symptoms produced are due to the ptomaines or the toxins, or a mixture of both, is not fully understood.

"The term toxin is applied to a poison produced by bacterial action, without definite knowledge as to whether it be a ptomaine or a poisonous proteid." (Bartley, "Medical Chemistry.")

The following are a few of the principal ptomaines of known composition :—

Neurine, one of the most common of ptomaines, is got from fish, flesh, etc. It is of a very poisonous nature.

Tyrotoxin is the poison produced in cheese and milk products. (This was the active agent in the serious outbreak of food poisoning a few years ago at Mount Morgan, traced to the milk supply.)

Sepsine has lately been found in putrid beer, and in the old country it has been responsible for a good deal of sickness.

Muscarine, a very violent poison, is associated with decaying fish, and also found in the poisonous mushroom, thus giving a link between the so-called animal alkaloids and the vegetable alkaloids.

Trymethylamine, from herring brine.

Crusocreatinine and *xanthocreatinine*, derived from fresh meat.

Besides these we have cadaverine, putrescine, choline, and many others.

Symptoms of ptomaine poisoning.—It has been already stated that ptomaines vary considerably in their physiological action. Some cause intense gastro-intestinal irritation, others act directly on the heart, some act directly on the nervous system, and others again on particular centres. The usual symptoms of ptomaine poisoning are sudden and severe retching, abdominal pain, frequent diarrhœa (the discharge being very offensive), prostration, disturbed circulation, and often delirium. Thirst is usually intense. There is sometimes dilatation of the pupils, and redness of the skin, or a fine, scarlatina-like eruption. The temperature in some cases is elevated, but in most cases it is below normal. There is a tendency to collapse, which must be guarded against. The loss of the power of contracting the muscles, even under electrical stimulus, is sometimes remarkable, and is a characteristic symptom in poisoning by muscarine, a ptomaine which, as already stated, is found both in putrefying flesh and in poisonous mushrooms.

A point in connection with the period of incubation is worth calling attention to. There is usually a period of incubation varying from two to six hours, and with the stage and degree of putrid fermentation in the given article of food, the period of incubation in different persons shows a remarkable agreement, the symptoms frequently beginning about the same time in each individual case.

I do not intend to detain you to-night with an account of the clinical features of the outbreak in November of last year. Suffice it to mention that some 17 persons were taken suddenly ill with the usual symptom of pains in the stomach, vomiting, diarrhœa and some collapse. "Corned beef" seems to have been the incriminated article of food in every case. All the patients made a more or less rapid recovery at the General Hospital, or at their own homes under the doctor's care. An investigation of the "corned beef" alleged to have been the cause of the outbreak was made by Mr. Henderson, the Government Analyst, and myself.

(*a*) *Bacteriological.*—The sample of meat submitted to me for examination was apparently sound and without odour. On microscopical examination of a scraping from the surface of this meat, I observed in it numerous bacteria; cocci, staphylococci and bacilli, the latter short rods with rounded ends. In the hanging-drop slides a large number of actively-moving organisms and a few non-motile bacilli were observed. With a view to isolation of these forms, agar plates were inoculated and incubated in the ordinary manner. Cultures in broth and milk, on agar, potato-agar and on gelatine (the latter incubated at laboratory temperature) were also made. In this way two species of microbe were isolated, one a staphylococcus, resembling in its morphological and cultural properties the staphylococcus pyogenes albus, which grew very abundantly, forming typical colonies on the agar plate; and the other, a non-motile bacillus, growing in pairs like a diplococcus fairly numerous in broth, but multiplying with difficulty on the agar plate.

Sub-cultures of the species were made and used for testing their pathogenic action on a variety of animals. Rats, guinea-pigs, and mice were inoculated, but all remained perfectly unaffected.

Fresh guinea-pigs, rats, and mice were fed with biscuit soaked in a watery extract of the

Digitized by Google

original meat, with portions of the meat, and also with the cultures and sub-cultures. All the animals survived, and apparently suffered no injury with the exception of one of the rats, which became very ill on the third day and was despatched on the ninth. The post-mortem examination of this rat revealed the blood in the heart fluid, the lungs very tough and shrunken, the liver dark, the spleen not enlarged, and much sanguineous mucus in the small intestines. No micro-organism was found in any of the organs or in the blood. Serum reactions from blood taken from two convalescent patients in the hospital were also negative.

(*b*) *Chemical.*—The Government Analyst was unable to isolate any ptomaine from the specimens of meat or from the vomited matter submitted to him by the police authorities. Therefore, neither the bacteriological nor the chemical examinations indicated the presence of a substance—bacillary or toxic-chemical—which might account for the symptoms manifested in the persons affected. Either the poison that so severely affected the persons eating the meat had disappeared from the material by keeping, or its toxicity and pathogenicity had varied, as it is liable to do.

The above results are interesting if only for the negative results obtained. There was no indication that the meat contained a mineral poison, or ptomaine, or infecting microbe. The circumstances of the outbreak as regards character and duration of illness, the various periods of latency (three to nine hours) in those attacked, present a resemblance to other outbreaks of meat poisoning which have been referred to the presence of microbes in the suspected meat. Whether the number of bacteria observed found in the inculpated meat a suitable pabulum, and there multiplying, influenced adversely any hypothetical infecting bacillus as a result of some chemical change effected by bacterial action, is a matter of conjecture. Perhaps the preservative usually added to meat by butchers may also have played a part in the inhibition.

In connection with the feeding experiments it must be remembered that rats, mice and other rodents are not susceptible to poisoning by the ingestion of putrid materials, and this immunity, as Klein has pointed out, does not, therefore, indicate a corresponding harmlessness to the human consumer.

Bacillary Food Poisoning.—We have quoted cases in which symptoms of acute gastro-enteritis set in in a few hours, or even less, after the ingestion of the food, and it now remains to say something of those cases in which symptoms of acute gastro-enteritis set in after a definite incubation period.

Bacillary food poisoning is a disease of a specific character, due to food conveying a true infection, or to the poisons developed in and from the food by bacterial agencies.

As a good example of bacillary food poisoning I may cite the recent outbreak at Derby in September of last year. Some 220 persons were affected. In every case the persons attacked had consumed portions of infected pork pies. The widespread character of the outbreak is indicated by the fact that cases were reported from London, Cheltenham, Taunton, Devonport and Sheffield, which were all found to be due to the Derby pork pies.

Professor Delepine, of Manchester, who made an examination of the pies, was able to isolate a bacillus belonging to the colon group, which was, in his opinion, undoubtedly responsible for the pathogenic properties of the pies. The bacillus in question was isolated from the pork pie, the pork bone pie, from the blood, spleen, and intestines of one of the persons who died; and from the spleen, bile, and intestines of several animals which had died in two or three days from the effects of feeding on the pork pies. The bacilli obtained from all these sources were identical in appearance. Animals inoculated with this bacillus died, and in their blood the same bacillus was again found. Thus, apart from food stuffs becoming possessed of poisonous properties in the manner already described above, the more serious poisonous results would appear to be due to a disease of a specific character, or to poisons developed from or in the food by bacterial agencies. The symptoms produced by the consumption of the poisoned pies were those of gastro-intestinal disturbance accompanied by a disturbance of the nervous system. The period of incubation was almost invariably free from any discomfort, and the first symptoms noticed were generally severe abdominal pain, nausea and sickness, accompanied by severe diarrhœa.

From the result of his bacteriological examination, Dr. Delepine has arrived at the conclusion that the poisoning was due to the presence in the pies of a pathogenic bacillus, which he has named for the purposes of reference the bacillus enteritidis of Derby, and which is closely allied to the bacillus enteritidis of Gärtner, and the presence of the bacillus enteritidis in the pies was due to fæcal pollution of the meat before it was baked.

In a summary review (L.G.B. Reports, 1891-2) of 14 instances of food poisoning, Dr. Ballard deals with the Welbeck epidemic,

Digitized by Google

where cold boiled ham was the cause of the illness; the sausage poisoning case near Chester; the poisoning of several families at Whitchurch by brawn; the Carlisle case, with its specially painful circumstances of poisoning by refreshments served cold at a wedding breakfast; and many other cases.

The Middlesborough epidemic of 1888 resulted in 490 deaths, and was due to the consumption of American bacon. In this bacon was found a bacillus which was capable of producing a specific general fever, the special characteristic of which was pleuro-pneumonia.

In a summary of a collection of causes of meat poisoning, Dr. Ballard distinguishes—

(1) Those caused by the introduction of a harmful microbe into the body;

(2) Those caused by the introduction into the body of a poison which has already been manufactured in the meat by such microbe; and

(3) Those in which both microbes and its already manufactured poison have been together concerned in the illness.

The distinction between the three classes is chiefly one of duration of the incubation period, which is long, as a rule, in the first class, short in the second, and variable in the third.

Toxicity depends on two factors: on the bacterium itself and on the chemical product of its activity. In the latter the symptoms appear soon after the food is eaten, and in the former there is necessarily a period of growth and production of the toxic substance.

Summary.—From investigation of the different cases of food poisoning that have occurred in England and elsewhere, the following deductions have been drawn by Ballard, Luff, and other observers:—

(*a*) In food which has become poisonous by keeping, one or both of these two conditions obtain — viz., a living microscopic organism, and an organic chemical poison, which may be a ptomaine, albumose, or toxin.

(*b*) The substance which is the immediate cause of the morbid phenomena or symptoms is the chemical poison which probably is produced by the action of the micro-organism on the albuminous constituents of the food.

(*c*) Both the specific micro-organism in an infected food, and the poison resulting from the fermentative and putrefactive changes induced in it may be fleeting as regards their existences, since the micro-organism may be killed by its own products, or the chemical poison, from its unstable nature, may undergo decomposition; so that an infected food which may be poisonous at one time may fail to be poisonous at a later period.

(*d*) The micro-organism may produce its peculiar chemical poison from the material affording it nourishment, either outside the body of man or within it.

(*e*) When symptoms are produced by poisonous food without an incubation period (that is, from half-an-hour to a few hours after taking the food) they are probably due to the action of an organic chemical poison previously manufactured in the food.

(*f*) That the symptoms induced by poisonous food are not always due to chemical poisons, but to *a true infection*, is shown by the fact that extremely virulent micro-organisms have been found in articles of food, and in the viscera of persons dying from the consumption of such articles.

Sir George Buchanan, Medical Officer to the Local Government Board, England, states:—"That the phenomena which were spoken of as food poisoning are claiming an ever-growing evidence to be regarded as true infective diseases, as much so as was scarlet fever or tuberculosis. That they have not been generally admitted into this rank arises, firstly, from the circumstance that some of them have seemed to be wanting in the incubation period; and secondly, because they are rarely recognised as being transmissible from person to person."

CLINICAL AND PATHOLOGICAL FEATURES.

"A person," says Dr. Ballard, "at a varying period after eating the poisonous food often, and, indeed, usually without any preliminary warning (perhaps while he is engaged in his usual avocation thinking himself quite well), is suddenly attacked by the initial symptoms, which may be rigors, or one or other of the following symptoms: Faintness, muscular weakness, and prostration, sometimes very severe, or giddiness, abdominal pains, vomiting and diarrhœa, followed by fever, intense thirst, more or less violent headache and pains in the various parts; a variety of other nervous disturbances, such as muscular twitchings, various disturbances of vision, dilatation of the pupil, or drowsiness.

"Convalescence is apt to be prolonged, and is sometimes accompanied by some desquamation of the cuticle. The pathological

Digitized by Google

conditions noticeable after death in men and animals consist of inflammatory, hæmorrhagic or destructive changes in the stomach and intestines, pneumonic engorgement or a hæmorrhagic condition of the lung tissue, and inflammatory or destructive changes in the liver and kidneys. These are the phenomena, not of merely local irritation but of a general disease. Both clinically and pathologically, therefore, the phenomena resemble those of our better understood specific fevers, with which this form of malady must in future be classed."

One point, in conclusion, with reference to the medico-legal interest attaching to these cases of food poisoning. In many cases the incriminated food frequently appears sound and good, so far as can be judged by appearances, taste and smell. In such cases the advice of Dr. Luff, the official analyst to the Home Office, in his work on "Forensic Medicine and Toxicology," is worth quoting He says: "In such cases it would be obviously unjust to hold the manufacturer or vendor of such articles of food responsible for any disastrous effects following their consumption, unless it can be shown that unsound meat, etc., was used at the outset, or that there was gross and culpable neglect of the ordinary precautions as to cleanliness at the place or places where the food was prepared. The exact degree of responsibility attaching to the manufacturer or vendor is a matter that must be decided with special regard to the circumstances of each particular case."

With that opinion I thoroughly agree.

(Read before the Queensland Branch of the British Medical Association.)

NOTES ON THE CLINICAL ASPECTS AND MODERN TREATMENT OF PULMONARY TUBERCULOSIS.

By A. Stewart, M.B., M.S. (Glasg.), Medical Officer Jubilee Sanatorium, Dalby, Queensland.

PRIOR to the discovery of the tubercle bacillus by Koch, the diagnosis of the initial stages of pulmonary tuberculosis was often difficult; but now that this difficulty has been overcome it is our duty to take every opportunity to make the diagnosis a certainty. No more conclusive evidence can be given of this vital matter than by quoting statistics showing the results of treatment obtained in the different stages of pulmonary tuberculosis. The largest series of statistics yet published are those by Dr Brehmer, of Göbersdorf, who shows that from 1876-1886 inclusive 5032 cases were treated. Of these, 1390 were in the first stage, and 387 (27·8 per cent.) were cured; 2225 were in the second stage, and 152 cured (5·8 per cent.); and 1517 cases in the third stage, only 12 cured (0·8 per cent.). These statistics alone show the paramount importance of an early diagnosis, and demonstrate to us that more than a recognition of a pronounced case is required, and that we should ever be on the alert for the very earliest suspicious signs and symptoms. In every case of chronic cough the morning sputa should be systematically examined, not only once, but many times, as the absence of bacilli may mean little, while their presence is of such vital importance. I consider that it is the duty of every practitioner to have the sputum examined in every case of slight cough following acute pulmonary diseases. If this were done I feel sure that we should meet with many surprises. From the history and subsequent course of many cases received at the Dalby Sanatorium, the so-called broncho-pneumonia, bronchitis and even influenza have been, probably, tubercular from the very start. In conjunction with this, the observations made by pathologists go to prove that pleurisy with effusion said to be due to cold, following an attack of influenza, in a previously healthy subject, is really tubercular in origin. Even in cases where there is no previous history of acute pulmonary trouble, it has been demonstrated fully that the majority of such cases are tubercular. In many of these, convalescence is prolonged, while in others recovery to good health is rapid, and apparently permanent; but the greater proportion in the long run end in recurrence, and, on recovery from this, sooner or later there is evidence of the insidious beginnings of incipient tubercular mischief. The signs, in these cases, are, as a rule, insignificant, and may only consist of weakened respiratory murmur and an occasional cough in the morning. The lung is probably only slightly affected, the disease of the pleura being primary to that of the lung, and the source of affection derived from the lymphatic vessels of the cervical, bronchial, or mesenteric glands. Therefore, patients whose convalescence is slow ought to be told of their condition, and the open-air treatment commenced forthwith, and even those who make apparently good and prompt recoveries ought to be told frankly of the suspicious circumstances which pertain, and the ultimate results which may ensue, if due precautions be disregarded. The prognosis of such cases, under modern methods, is good. On the other hand, cases of dry pleurisy, which are in all probability secondary to the lung infection, are easily recognised and, as a rule, assume a very chronic course. The repeated attacks of pleurisy rapidly produce thickening and ad-

Digitized by Google

hesions, so that a dull percussion note, which is often wooden in quality, is easily elicited. Tubercle bacilli in the sputum are often scanty and may be absent for days together. Though very chronic in its course, the prognosis, so far as cure is concerned, is bad, and is probably due to the embarrassed movements of the lung produced by the great thickening and adhesions.

Apart from the discovery of the bacillus in the sputum, many of the symptoms and signs are pronounced enough to enable us to form a diagnosis without the aid of bacteriology.

Hæmoptysis is a symptom which should never be disregarded, even although the patient is in apparent good health. When slight the blood appears in streaks; when in larger quantity, so as to amount to hæmorrhage from the lungs, the blood is bright red and frothy, and the continued spitting afterwards of sputa mixed with small clots decides its pulmonary origin. The other possible sources of error are bleeding from the posterior nares, spongy gums, and in some cases of heart disease. These causes can easily be excluded by careful examination. The popular fallacy that the blood comes from the throat can be disproved in the same manner. Vicarious menstruation is hardly worthy of notice. Having excluded all possible sources of error, the occurrence of hæmoptysis can only indicate one pathological condition—namely, pulmonary tuberculosis, even in the absence of all physical signs. The apparent absence of signs may be accounted for by the fact that the patch of tubercle is small and deeply seated. Such cases, therefore, should be looked upon as tubercular, and the patient informed of it. This is certainly better than waiting till the condition is such that it can be recognised by any man in the street.

Consistent loss of weight when accompanied by cough must always be looked upon with suspicion, the more so if there be even an occasional rise of temperature. On the occurrence of the above symptoms, examination of the chest becomes imperative.

Deficiency of movement in either infraclavicular area is a very valuable sign, which is often overlooked. The delicate test of percussion also seems to me to be a method which has fallen into disuse within the last few years, the infraclavicular region only being the site of election generally practised upon, while the supra-scapular and supraclavicular areas are often ignored. Increased vocal fremitus and vocal resonance, more especially the latter, are also very useful.

The use of the tuning fork as a means of diagnosing pulmonary tubercular deposits was first brought into notice by Dr. Stritch, of Dublin, who proposed it as a means of diagnosing pleural effusions. From trials made by me in early cases, of which I have ample opportunity, I am inclined to think that it can be adopted as an aid to diagnosis. The principles of the test are founded on the results noticed in what is known to aurists as Weber's experiment. This I first carefully demonstrate to the patient, and when satisfied that he understands it thoroughly, the vibrating tuning fork is placed on the manubrium of the sternum. In the great majority of incipient cases the patient hears the note more distinctly on the affected side. This method is still on trial by me and will, I believe, take its place as a delicate test in the diagnosis of the disease. The only drawback to its use is the fact that we have to depend solely on the intelligence of the patient, and before beginning must make sure that the hearing is reasonably normal. The same explanation can be applied to the well-known sign of the exaggeration of the heart sounds on the affected side. Auscultation as a means to investigate the state of the lung is in these days of the binaural stethoscope so popular, and the method so familiar to medical men, that it only requires to be mentioned. At this stage I must apologise for alluding to points which are known to any well-informed senior student; my reason for mentioning these essentials of physical diagnosis is the fact that since the discovery of the tubercle bacillus, the presence of the latter has been looked upon as such an important factor that the delicate methods formerly employed are now, in a measure, ignored. It must be remembered also that there are many initial cases where cough and expectoration are absent, and further that in some cases where expectoration is present the bacteriological test gives a negative result. In the pre-bacillar days the above tests were all we had at our command.

The inoculation of Koch's tuberculin, so as to produce the reaction test, has been proposed, and is employed in the principal medical schools of America. It has, however, never been used to any extent in England or the colonies.

Great things were expected from a method introduced, I believe, by Behring, which is merely an adaptation of Widal's agglutination test for typhoid fever. The results from this have not been satisfactory, which is to be regretted, as some really good method, short of the reaction test by tuberculin, whereby tuberculosis could be determined with certainty, is urgently required.

Though admitting that the usual classification into stages is not scientific, and very often misleading, it has become such a recognised

Digitized by Google

and established custom in the literature of the subject that it cannot be altogether ignored. In order to make the usual classification more explicit, the following has been adopted by me here :—

Incipient.—Where the physical signs are confined to very small areas and the symptoms slight, the signs may only consist of weakened respiratory murmur, with the expiration distinctly audible and lengthened. In these cases faint localised dulness in percussion can sometimes be made out above or below the clavicle, or in the supra-scapular area. In many cases the signs are so trivial that a diagnosis can only be determined definitely by finding bacilli in the sputum.

Pronounced Incipient.—When larger areas are affected and symptoms are more in evidence, the signs in these cases are usually distinguished by impaired percussion note in the supra-clavicular and supra-scapular regions, extending downwards in varying degrees of intensity. The respiratory murmur is usually bronchial. (The terms bronchial and tubular are considered synonymous by some, and by others tubular is used to convey another meaning, therefore the latter term is discarded to prevent confusion.) In some of these cases a casual observer may be deceived by the exaggerated or puerile breathing of the other lung, which is merely compensatory.

Softening.—The meaning implied is obvious. In this the bronchial breathing is accompanied and, as a rule, masked by mucous rales, giving one the impression of moisture. These vary in quality greatly, from very fine rales, sometimes called subcrepitant, to coarse, bubbling ones. In the diagnosis of these cases I strongly advise careful examination of the neighbourhood of the inferior scapular angle on the right side. This area I find is often missed.

Cavitation.—The diagnosis of cavity when small and deeply seated may be unrecognised during life. When excavation is more advanced the respiratory murmur is very hollow or cavernous; when very large, it is amphoric, and whispered pectoriloquy is very marked. The percussion note varies. When elicited by a very light stroke it is dull, by a heavy one it becomes almost tympanitic in quality. The presence of the cracked-pot sound has been slightingly spoken of by many English physicians, and by some it is considered to be of no value. A sound clinician like Dr. Paul Guttmann, after discussing fully the conditions under which it may be found, states: "The cracked-pot sound is, as the foregoing facts indicate, always dependent on the same causes, though the particular conditions in which it is found may be very different anatomically; it is most frequently due to the presence of vomicæ in the upper lobes of the lungs, the cases of pleurisy, pneumonia and pneumo-thorax in which it is observed constituting a very small fraction of the total number met with. The occurrence of the sound, therefore, in the course of a pulmonary affection known to be phthisical may be taken as absolute proof of the formation of cavity." I feel sure that a great deal of discredit has been thrown on this sign by the loose way in which it has been applied. The plessor finger ought to be held firmly to the chest wall while percussing. When applied lightly I have often produced it over a perfectly healthy adult lung. The cracked-pot sound, therefore, ought to have a credited place amongst our physical signs.

From the opening of this institution in November, 1900, to December 31st, 1902, 124 cases of pulmonary tuberculosis have been discharged. The results and classification described above are given in tabulated form. Cases of mistaken diagnosis, such as bronchiectasis, etc., have, of course, been omitted.

	Cured.	Improved.	I.S.Q.	Deaths.
Incipient	26	9	2	—
Pronounced Incipient..	10	14	2	—
Softening	1	19	6	—
Cavity	1	15	15	4

The cases which have been discharged as cured, *i.e.*, physical signs in abeyance, cough and sputum disappeared, and tubercle bacilli consistently absent from the sputum prior to its disappearance had an average daily residence of 154 days and the average gain in weight of 19 lb. When dismissing those cases, instructions are given that they shall communicate until further notice once a quarter with the Sanatorium as to their state of health, and special instructions are also given as to their future mode of life, namely, that their residence here is not only to obtain, if possible, an arrest and cure, but also to educate them into a better mode of life physically, whereby the benefit accruing may be permanently maintained. It is anticipated that these instructions will not be strictly adhered to amongst those who return to town life to earn their living, where the hygienic conditions are in many instances by no means ideal. It has been generally stated that the treatment in its entirety has to be continued at home for at least two years after dismissal from a sanatorium, so as to insure the patient from any recurrence; but, unfortunately, this can only appeal to the leisured classes. Our patients are recruited chiefly from the working classes, who have to earn a livelihood for themselves and frequently

Digitized by Google

also for those dependent on them. So much is this so, that the loss of time entailed in sanatorium treatment involves in itself a great deal of hardship. A compromise can sometimes be made by finding employment in the bush; but this is often difficult. To continue the treatment while earning a livelihood in a town is inconvenient to men, who gradually lapse into their old mode of life, sleeping, perhaps, with the windows open. With women the treatment is, as a rule, practically impossible, and in the timid the proverbial fear of "a man below the bed" becomes increased. In spite of all these serious disadvantages, the communications received by letter and otherwise have been so far eminently satisfactory. Of the 38 cases dismissed, 34 continue to earn their living free from disease, and many of the men get through an arduous day's work, and inform us that they enjoy good health. Up till now there have been only four relapses. It is hardly to be hoped that this will continue, as it must be remembered that the majority are working under very unfavourable conditions. It is all very well to say that this ought not to be so; but the stern fact that they are breadwinners stares them in the face.

I have not tabulated the results into percentages, which, if done, would show good results. To do so in such a small number of cases would be delusive and untrustworthy; little short of dishonest, especially in a disease like this, which is so variable in its course, and so delusive in its ultimate issues. The only way that statistics referring to treatment of this disease can be looked upon as at all trustworthy is from a large series of cases like those of Brehmer's, already quoted.

The general treatment consists of living and sleeping in the open air night and day, suitable exercise according to the capability of each individual case, and a wholesome nourishing dietary, consisting of three substantial meals a day. Besides this each patient takes daily four pints of milk derived from pasteurised cows, the average Australian's rooted objection to milk being soon overcome. Forced feeding is not adhered to. To force a man to eat a plate of roast beef after he has already vomited one, or a portion of one, seems to me to be unphysiological.

The consideration of the medicinal treatment can be dismissed in a few words. The exhibition of creasote and its derivatives has very little effect in pronounced cases. After trying them all I have reverted, in private practice, to creasote administered in milk thrice daily, after meals, in cases of suspicious cough, with very curative results.

Drawing conclusions from the investigations of Garrod and Dyce Duckworth on the antagonism between gout and tubercular diseases, the exhibition of urea by mouth or hypodermically is recommended greatly in England. The theory is plausible and attractive, but after an extensive trial, in all stages, I am satisfied that its action is inert; that it is, in short, a worthless and expensive drug.

The symptomatic treatment can also be dismissed in a few words. Fever can only be combated by absolute rest and very careful dieting. I am quite satisfied with the taking of the four-hour temperatures in the mouth. The method by the rectum is good, but offensive to many, and when taken by the patients themselves unreliable. Cough usually gives way to life in the open air. In winter, cod-liver oil is very beneficial. Hæmorrhage is generally controlled by absolute rest, and to ensure this, when bleeding is excessive, morphia administered hypodermically in small doses is of great service. When the disease is restricted to one lung, decubitus on the affected side is advisable to protect the healthy lung. The administration of ergot, either by the mouth or hypodermically, does not seem to be productive of much good. It is useful chiefly as a placebo, the patients recognising the taste when it has been used in treatment prior to admission.

Looking back on my past experience, in the days of the old treatment, it is astonishing how comparatively rare hæmorrhage is nowadays. I may note here also that a rapid increase in weight, with no corresponding improvement in the physical condition of the lung, in hæmorrhage cases is not altogether beneficial, and in many predisposes to a large bleeding. Want of appetite and gastric symptoms usually give way to improved hygienic conditions; if persistent the prognosis is bad. In relation to this I strongly advise practitioners against giving a gloomy prognosis so long as the *appetite remains good*, unless his remarks are carefully fenced in by many saving clauses. The instances of temporary recoveries in these cases are so numerous that the practitioner should be careful not to indulge in what Gardiner calls "happy guessing." "Given up by the doctors" is familiar to us in the advertisement of Vitadatio and other quack medicines. It is Pollock who states that the only safe prognosis in these cases is anything between four months and 40 years. With reference to prognosis generally, during my practice here I am inclined to think that the course of pulmonary tuberculosis is more acute in Queensland than in the old country.

Digitized by Google

Having considered the cases treated here, I now make an appeal for a wide application of the outdoor treatment all over the States. This has been already advocated by Dr. Hare in his able report for 1901 made to the Government in reference to hospitals and other charitable institutions in Queensland, and also by Dr. Turner in his report as delegate to the Congress in London.

As Dr. Hare points out, typhoid fever, diphtheria, erysipelas, and many septic conditions are infectious in a much more dangerous sense than tuberculosis, and are treated in local hospitals without comment. Is it not, therefore, unreasonable that tuberculosis should be excluded? The fear in the lay mind of the "catching" of consumption has been clearly the result of a too free discussion of the nature and prevention of tuberculosis in the lay press. I am not quite sure that the medical profession have not indulged in this, and are in a measure responsible for this scare. This has been done in all good faith with a view to its prevention, but I am afraid the only result accruing has been prejudice.

The open-air treatment could be adopted in all our hospitals by the construction of fixed shelters such as those used by Dr. Hare in the Diamantina Hospital. However perfect the system of ventilation may be, it can never equal sleeping and living in the open air continually. The fear of cold in boisterous weather, even in winter, is soon overcome and the patient really enjoys the life. I think also that the dangers of windy weather are greatly exaggerated even by medical men. The fact remains that the patients here do better and make more rapid progress in winter when the weather, though bright and sunny, is bitterly cold owing to the cutting westerly winds. When these prevail they sleep on the sheltered side, and, as I have said before, seem quite unaffected by them.

Doubtless the bitter hostility of the local committees and subscribers, who are as a rule not noted for intelligence, in what they took upon as the new fangled notions of doctors, has to be contended against. To combat this they must be reminded that more than half of the hospital, according to the present subsidy, belongs to the Government and that it is a national question which is at stake.

Furthermore, an active scientific interest and an attention to detail must be taken by those in authority. This may be difficult with regard to the nursing, which in most bush places is quite of an amateur nature. The treatment is a subject of never-ending interest to the medical men in charge, if he regard it scientifically. There is nothing more cheering in a dull, monotonous life in the bush than to watch patients gaining in health and strength day by day, many of whom are progressing towards an absolute cure.

If a strenuous effort were made to further the views of Dr. Turner and Dr. Hare in this direction, incalculable good could be done to humanity, and I feel sure that there is no more efficient means of breaking down the silly superstitious impressions abroad about the "catching" nature of consumption. By the education it would produce in every district throughout the State it is quite probable that it would pave the way towards solving the question of the compulsory notification of this disease in the future more than any other means yet proposed, certainly more than can ever be attained by the issue of tons of tracts from the National Society for the Suppression of Tuberculosis.

The unwarranted prejudice that prevails all over Australia against the effect of the sea air of our health resorts is worthy of notice. The cause of this is probably due to the fact that the open-air treatment, simple as it seems, cannot be adopted easily unless amongst the well-to-do. The Riviera, Madeira, Canary Islands, Bournemouth, Torquay, and many other similar places, are deservedly popular in Europe. Why, therefore, should there be any difference in the Southern Hemisphere? The probabilities are that the afflicted patient goes down to, let us say, Southport with a bottle of cod-liver oil and Fellows' Syrup in his pocket (excellent things in their way), and sleeps in a stuffy room, having carefully shut the window and stuffed the key-hole, not forgetting also the frequent visits during the day to the muggy atmosphere of the bar parlour in the nearest public-house. Is it surprising that the result is a bad one? The same treatment pursued in the Riviera would produce the same unsatisfactory state of affairs. Even although he may sleep in a well-ventilated room, with the window widely open, I again repeat that it cannot be compared to sleeping in the open. The essential point is pure air, and plenty of it; it is immaterial whether it is on the coast or in the country. There is no special climate necessary in the open-air treatment of pulmonary tuberculosis.

The only question now to be considered is prevention, and though this may seem to be beyond the province of this paper, I hope it may form a profitable source of discussion, and to introduce that I may be allowed to make a few remarks.

At first sight voluntary notifications seem to be reasonable, and there are many features to

Digitized by Google

be advanced in its favour. The great objection to be made against it is the fact that those who are endowed with that amount of shrewdness and sound common sense as to lead them to submit themselves in this way are just the class of people who do not require looking after. It is now proposed that those in charge of the different hospitals should notify the cases under their care. This is manifestly unfair so long as the others affected outside are allowed to go free. On pushing the infectiousness of tubercular disease to its logical conclusions, it seems to me that it resolves itself into compulsory notification or nothing, depending solely on general sanitary measures in reference to a more wholesome housing of the poorer classes. It has been lately proved by Dr. Littlejohn, of Edinburgh, that the prevalence of phthisis is almost in inverse proportion to the yearly rental of the houses. That is to say, the lower the rent the greater the tendency to the occurrence of pulmonary phthisis.

Compulsory notification is on its trial in several parts of America, and from all accounts is acting well, but this can only be judged definitely after a long series of years. Theoretically I am very much in favour of compulsory notification in all cases, rich or poor, but how this can be worked in a practical manner without the semblance of persecution is difficult to make out. The only feasible method is the one I have already mentioned. Do not educate the people by means of tracts and lectures. Show them in their own township or district the practical workings of prophylaxis. If a united effort were made to accomplish this I feel sure that we would be within measurable distance of compulsory notification, within a few years after the introduction of this treatment all over Australia. It is one of the best methods yet placed before the medical public to solve this vexed question.

It must never be forgotten that many who are subject to this disease are breadwinners, and that a premature enactment making notification compulsory would only brand them before society; at least, so it would be viewed by the non-thinking public in their present state of crass ignorance of this subject. Following this, the difficulty of obtaining employment would doubtless increase each year.

The consideration of prevention naturally leads us on to immunity and susceptibility, and here I must protest against the prevalent notion, especially amongst bacteriologists, that there is little or nothing in heredity; not that I mean to imply that the actual tubercle bacillus is passed from mother to child, but that a certain susceptibility or immunity, as the case may be, is certainly passed to her offspring. This has been brought under our notice by Dyce Duckworth and Gowers. However essential the bacillus may be to the propagation of the disease, there is such a thing as susceptibility. To trace this, the enquiry into the family history must be gone into cautiously, as many patients seem to think it almost a criminal offence to have a bad tubercular history. I find it as difficult to get a candid statement of facts in this disease as it is when making enquiries about insanity in a family. There seems to be a prevalent feeling that there is some disgrace attached to it, and I am afraid that this is indirectly aided and abetted by the medical profession. Why should the profession acknowledge, use, and condone such expressions as "bleeding from the throat," "weak blood vessels and lungs," etc., etc. *ad nauseam?* At best they only give the patient a false assurance, are the means of losing many precious moments, and indirectly cause the death of the patient.

Though hereditary susceptibility may be present in most unexpected quarters, two types of subjects can be easily discerned. There is the tall slender boned man, a small eater, with feeble rapid pulse and usually of great mental acumen and intelligence, and in whom, if he should become a victim, the *spes phthisica* is markedly present. It is from this class that many of the ablest men and women in the different paths of life are recruited. On the other hand, there is the diminutive, ill-developed, flat-chested, pigeon-breasted individual, dwarfish in intellect and body, who has no business to have been born at all—a veritable weed. These can be counted by the dozen in the potteries of Staffordshire or in the mills of Lancashire, and on Saturday evenings can be seen in numbers loafing about public-house corners and at the doors of the second-class music-halls of Manchester, Birmingham or Glasgow.

It would be interesting to know amongst the apparently healthy of the above two types how many would give a negative result on the application of the tuberculin test.

The optimistic views of enthusiasts who predict the stamping out of this terrible scourge are too Utopian to be ever realised. Its ravages will be certainly greatly curtailed, and much suffering relieved thereby; but consumption, like the poor, will be always with us.

(Read before the Queensland Branch of the British Medical Association.)

Digitized by Google

THE BLOOD IN PNEUMONIA.

By Sydney Jamieson, M.B., C.M. (Edin.), Director of Pathological Department and Hon. Physician, Sydney Hospital, and H. Skipton Stacy, M.D., Ch.M. (Syd.), Hon. Assistant Surgeon, Sydney Hospital.

THIS article deals only with the corpuscular elements of the blood, and mainly with the white cells. The work was done in the wards and pathological department of the Sydney Hospital.

Red Cells.—Usually remain normal. Sometimes after the crisis there is a reduction.

White Cells.—From the onset of the illness there is an increase, which usually becomes very marked. In one case of double pneumonia the count was 115,000. They take much longer than the temperature to reach normal, frequently several weeks. The increase is almost invariably amongst the neutrophiles. In only two cases out of 61 was the leucocyte count normal or diminished; in both these pneumococci were found in the blood, and both were fatal. A leucopenia is not invariable, however, with pneumococcal septicæmia, for other cases showed a marked leucocytosis. The degree of the leucocytosis does not appear to have any connection with the amount of lung involved. The absence of a leucocytosis invariably means a fatal issue, but many cases with it also die.

DIAGNOSTIC VALUE.

Influenza gives a normal blood count.

Typhoid also.

Pleurisy with Effusion.—Many cases of this cause no leucocytosis, though a few in the early stages raise the blood count slightly.

Tuberculosis.—Early cases of tubercular consolidation of the lung may resemble in symptoms and physical signs lobar pneumonia (generally apical); these, however, give a normal or only slightly raised leucocyte count.

Malaria of itself causes no leucocytosis; frequently the reverse, accompanied by pneumonia; gives a high count.

Meningitis.—Nearly all cases of meningitis (except most tubercular ones) resemble pneumonia in causing leucocytosis.

Peritonitis.—Nearly all cases of peritonitis cause leucocytosis.

Broncho-Pneumonia cannot be distinguished from lobar pneumonia by the blood count, nor can acute bronchitis.

Lobar Pneumonia, complicating typhoid, may or may not raise the leucocyte count.

Plague resembles pneumonia in having a leucocytosis; so also do *appendicitis* (except catarrhal cases), *suppuration*, *infective periostitis*, *acute rheumatism*, *smallpox*, *scarlet fever*, *pericarditis*, and *malignant endocarditis* (not all cases).

ERRATUM.

In the article on "The Blood in Enteric Fever" in the December issue, "incipient ulcer of the groin, whooping-cough," should have read "ulcer of the groin, incipient whooping-cough."

REFERENCES: P.M.N.—Polymorpho-nuclear Neutrophile; L.—Lymphocyte; E.—Eosinophile.
Normal number of leucocytes per c.mm. is 7000 to 10,000.

No.	Age.	Sex.	Red Cells.	White Cells.	Remarks.
1	38	M.	—	28,000	Ill 7 days. Temperature, now falling, is 100·4. Lobar pneumonia right base.
2A	40	M.	—	41,500 P.M.N., 92 per cent. L., 8 ,,	Lobar pneumonia. Ill 7 days.
2B			—	20,800 P.M.N., 94 per cent. L., 6 ,,	Ill 17 days. Temperature came down by lysis; reached normal this morning.
3	40	M.	—	25,100	Lobar pneumonia. Ill 7 days. Temperature, falling, 99.
4	49	M.	—	17,700	Right lobar pneumonia. Temperature reached normal yesterday. 102 this morning.
5	—	F.	—	12,400	Lobar pneumonia. Temperature normal for 2 days.
6	37	F.	—	16,000	Lobar pneumonia.
7	25	M.	—	23,700	Had a large pleural effusion also. Fluid contained pneumococci.
8	20	M.	—	14,400	Ill 4 days. Recovered, though was very bad. Apical pneumonia.
9A	33	F.	—	31,100	
9B			—	30,000	8 days later.
10	19	M.	—	28,000	Septic broncho-pneumonia; probably following extraction of teeth under ether.
11	2½	M.	2,822,000	35,500 P.M.N., 48 per cent. L., 52 ,,	
12	7	F.	—	30,000	

Digitized by Google

No.	Age.	Sex.	Red Cells.	White Cells.	Remarks.
13	22	M.	—	26,600	Ill 14 days.
14	41	F.	—	27,300	Temperature normal for 2 days.
15	—	F.	—	44,600	Ill one week.
16	52	F.	—	16,000	Ill one month.
17A	33	M.	—	15,700	Some turbid fluid in chest. Fuid eventually disappeared.
17B			—	17,100	4 days later. Temperature normal. Patient recovered.
18A	49	M.	—	18,000	Ill 3 weeks.
18B			—	12,400	12 days later, during which time temperature has been normal.
19	31	M.	—	18,800	Ill 10 days.
20	8	M.	—	45,500	Ill 4 days.
21	2	M.	—	15,500 P.M.N., 84 per cent. L., 16 ,,	Ill 2 days.
22	39	M.	—	26,600	Ill 14 days.
23A	48	M.	—	16,200	Taken day of crisis.
23B				7,700	7 days later. Temperature has remained normal.
24A	22	M.	—	12,600	Ill 4 days.
24B				13,500	3 days later. Day after crisis.
25	38	M.	—	10,000 P.M.N., 87·5 per cent. L., 12·5 ,,	Recovered.
26	45	M.	—	36,800 P.M.N., 99 per cent. L., 1 ,,	Taken 3 hours before death. P.M. showed grey hepatisation of upper lobe of left lung; also pneumococcal meningitis. Pneumococci in blood.
27	22	M.	—	Marked leucocytosis. P.M.N., 96 per cent. L., 4 ,,	Taken 6 hours before death. Grey hepatisation of upper lobe of left lung and lower lobe of right lung. Pneumococci in blood.
28	50	M.	—	4,700	Blood taken one hour before death. Temperature, 96 deg. Consolidation of left lung. Pneumococcal pericarditis and peritonitis. Pneumococci in blood.
29	36	F.	—	4,800	Ill 6 days; temperature high. Died 25 hours later. P.M. revealed grey hepatisation of whole of left lung and pneumococci in blood.
30	29	M.	—	14,200	
31	—	M.	—	20,600	Died about 24 hours afterwards. P.M. revealed grey hepatisation of almost the whole of left lung.
32	10	M.	—	14,000	Taken just after crisis. Was very bad, but recovered.
33	8	M.	—	15,700	
34	17	M.	—	23,500	Ill 7 days. Bad attack.
35A	42	M.	—	35,500	Ill 2 weeks.
35B			—	10,400	14 days later. Temperature normal for 12 days. Still a few physical signs at the left base.
36	30	M.	—	20,000	Ill 8 days. Severe attack.
37	—	M.	—	18,400	Ill 7 days.
38A	22	M.	—	19,100	Ill 2 days.
38B			—	30,000	4 days.
38C			—	13,500	10 days later. Temperature normal for 8 days.
39	49	F.	—	20,000	Died 6 days later. Had double pneumonia and chronic nephritis.
40	20	M.	—	11,300	The day after the crisis.
41	60	M.	—	11,500	Died. P.M. showed a mixed lobar and lobular pneumonia in the upper lobe of one lung, also acute interstitial nephritis.
42	75	M.	—	20,400	Almost the whole of one lung involved.
43A	25	M.	—	35,500	Ill 10 days. Delirious and unconscious.
43B			—	35,500	4 days later. Temperature normal to-day.
43C			—	16,000	10 days later. Temperature still normal.
44A	36	M.	—	17,000	The day after the crisis.
44B			—	13,500	14 days later. Temperature has remained normal.
45A	47	M.	—	24,800	Blood examined the day of the crisis.
45B			—	16,000	7 days later. Temperature has remained normal.
46	31	M.	—	27,700 Nearly all neutrophiles.	Ill 7 days. Recovered. Was very bad.
47	19	M.	—	23,500 Nearly all neutrophiles.	Very bad. Recovered.

Digitized by Google

No.	Age.	Sex.	Red Cells.	White Cells.	Remarks.
48	65	F.	4,600,000	34,000 P.M.N., 87 per cent. L., 13½ ,, E., 5 ,,	
49	25	M.	6,422,000	20,200 P.M.N., 87 per cent. E., 13 ,,	Ill 7 days. Moribund; delirious. Blood very dark. Died following day. One-sided; lower part of upper lobe.
50	30	F.	—	23,400 P.M.N., 83 per cent. L., 17 ,,	Just before crisis. Physical signs of asthma, from which she has long suffered. Cannot detect any of pneumonia, though undoubtedly has it. Rusty sputum with pneumococci.
51	4½	M.	4,444,000	52,400 P.M.N., 94 per cent. L., 6 ,, 52,400 P.M.N., 75 per cent. L., 22·5 ,, E., 2·5 ,, 22,200 P.M.N., 68 per cent. L., 30·5 ,, E., 1·5 ,, 28,400	7 days after. Temperature normal, 36 hours. 7 days after. Temperature hectic last 3 days. Needle put in chest; pus found. About 8 to 10 oz. let out (empyema). 24 days later. Temperature has been normal ever since the operation until the last two evenings, when it has been 100·4 deg. Wound has almost closed; very little pus from it.
52	19	M.	4,600,000	12,800 P.M.N., 93 per cent. L., 6·5 ,, E., ·5 ,,	Ill 8 days. Temperature falling by lysis the last few days; it is now between 100 and 101 deg. Reached normal next day.
53	—	M.	4,460,000	25,000 P.M.N., 80 per cent. L., 20 ,,	
54	—	—	4,750,000	20,000 P.M.N., 90 per cent. L., 10 ,,	
55	—	—	4,470,000	52,000 P.M.N., 88 per cent. L., 12 ,,	Double pneumonia, also infective endocarditis and peritonitis (serous).
56	32	M.	—	37,000 P.M.N., 96 per cent. L., 4 ,,	Double lobar pneumonia, Eighth day of illness; very bad. Died.
57	—	—	4,666,000	28,800 P.M.N., 96 per cent. L., 4 ,,	Double pneumonia. Seventh day of illness.
58A	23	M.	4,133,000	22,800 P.M.N., 82 per cent. L., 18 ,,	Ill 2 days. Post mortem: Empyema and pyo-pericarditis.
58B			5,488,000	37,000 P.M.N., 93 per cent. L., 7 ,,	Ill 6 days.
59	40	M.	4,155,000	27,300	Septic broncho-pneumonia.
60	49	M.	3,044,000	24,600 P.M.N., 89 per cent. L., 11 ,,	Blood watery. One-sided lobar pneumonia complicating Bright's disease.
61	30	M.	3,000,000	115,500 P.M.N., 96 per cent. L., 4 ,,	Double basal pneumonia. Died. Native of India.

FOREIGN BODY IN BRONCHUS.—TRACHEOTOMY REMOVAL.

By Hugh Busby, M.B., Ch.M. (Syd.), Gulgong, N.S.W.

On November 21st, 1902, I was summoned to see G.B., aged 6 years and 4 months. His baby brother had been tossing gravel into his face, and he holding his mouth open a piece had gone into his mouth and he had "swallowed" it. A lady who saw him two minutes afterwards asserted she had felt it when putting her finger down his throat, but I was unable to feel anything. The child did not seem much the worse for his experience, so I ordered soft diet, no aperients, and gave a small dose of Dover's powder, assuming that the stone

Digitized by Google

had been swallowed. About two hours after I was called again, as he seemed unable to breathe, but was quite natural again when I arrived. Next day he had a similar attack, a sort of spasm of the larynx, which I was inclined to put down to irritation of enlarged tonsils by the various fingers that had been put down his throat. After the third day, as no stone was passed per rectum, and the spasmodic attacks recurred once or twice in the 24 hours, I overhauled him thoroughly and found diminished expansion at the apex of the right lung, with feeble breath sounds. This was distinctly suspicious, but as nobody had seen the accident happen I was doubtful about any stone having lodged in the body at all. However, on December 4th Dr. McCreadie administered chloroform, and I examined the throat and œsophagus without result. From this time the symptoms pointed more and more to some irritation in the respiratory tract, so I advised a visit to the metropolis to have the Röntgen rays applied. Dr. Herschel Harris, who has kindly consented to add a few notes, informed me he had very little trouble in seeing the foreign body, and sent me a negative, which was very acceptable. The child was brought back to Gulgong, and admitted to the local hospital. On January 7th, 1903, I administered chloroform, and Dr. McCreadie, medical officer to the hospital, performed tracheotomy. In the second stage of anæsthesia the foreign body was heard to cause momentary obstruction to respiration by impinging on the vocal chords, and, when the trachea was opened, presented in the wound. There was some difficulty in extracting it, as it was very smooth and round. It was a piece of quartz about half an inch long by a quarter thick, and shaped like an orange pip, with the thick end up in the trachea. A tracheotomy tube was left in for 24 hours, and after its renewal progress was uneventful, in seven days the child being discharged, as the wound, with the exception of a small portion of the skin incision, was well healed. There has been no return of the respiratory trouble, and the right apex now moves freely on respiration.

Skiagraphic Notes.

By L. Herschel Harris, M.B., Ch.M., Sydney.

The fluorescent screen immediately disclosed a small shadow in the region of the fifth dorsal vertebræ, and on the right of the middle line. This shadow was best seen with the patient partly turned so as to allow the radiations to pass obliquely between the foreign body and the vertebræ. The size and shape corresponds with the above description of Dr. Busby. A skiagram was taken, but the result was not so clear as with the screen, as with the patient lying on the plate, with the tube directly over the middle line, the vertebræ lay between the plate and the foreign body, and so partly obscured the picture. One could have directed the rays obliquely on to the plate, but a distortion of the picture would have resulted. I localised the foreign body as being in the trachea, and resting on the entrance to the right bronchus, and this tallied with the various signs and symptoms, and, as the operation proved, was correct. Dr. T. Spiers Kirkland was present at the above examination, and agreed as to the above diagnosis.

PUERPERAL SEPSIS IN COUNTRY PRACTICE.

By C. H. Souter, M.D. (Aberd.), Balaklava, S.A.

I wish to bring before you the matter of puerperal sepsis—its causes, and the essential routine methods used for its prevention. To this end I have endeavoured to secure the views of the majority of medical men practising in the country in this State, and more or less remote from other practitioners. I sent out 50 circulars some months ago, putting certain questions. Thirteen of these papers have been filled up and returned. Though this is rather a small proportion, I can quite conceive many reasons which might prevent replies, and I am the more indebted to those gentlemen who have so courteously sent them at no small trouble to themselves. Those that came to hand appear to represent the "country practitioner" fairly well, and averages made up from them bear, in some cases, a striking resemblance to those published elsewhere.

I have also made some references to each printed opinion as I had access to, and have to thank Dr. A. A. Hamilton specially for the opportunity of reading and making extracts from his excellent paper upon "Puerperal Temperatures" of August, 1889.

My intention is to place before you what information I have been able to gather, with some comments of my own, and ask your opinion upon the following questions:—

I. When the doctor is called in at the commencement of normal labour in a healthy woman, is it necessarily his fault if any septic complications arise thereafter?

There are not wanting those in high places according to whom the answer is "Yes." I remember reading an article on this subject by an eminent lecturer on obstetrics, and one sentence has haunted me ever since. The

Digitized by Google

sense of it was as follows:—"It is a dreadful sight to look upon a hitherto healthy young woman dying of sepsis, as the result of a first and normal labour, in the midst of all her little wedding presents!" It is one of the most shocking things we are called upon to witness, and dreadful, indeed, if we have to suspect ourselves of being the cause. But while I am as ready as any to accept my full share of responsibility and just blame if need be, I am not prepared to acquiesce in the further statement, by the writer referred to, that "whereas sepsis is preventable in the circumstances, the medical attendant is directly responsible for its occurrence in every case."

II. If the doctor is *not* directly responsible, what conditions beyond his control may be *directly* answerable for the accident?

There are several qualifying considerations. Given a healthy woman at the full term of gestation, a normal presentation, and no accidental interference with the commencement of labour, we are still confronted with certain risks of sepsis not entirely under the control of a medical attendant. The most important of these, in my view, are: Examinations made by the "nurse" before the doctor's arrival; lack of particular cleanliness on the part of both patient and attendant, and in respect of bedding and clothing; infection already in the house or conveyed there by the "nurse" or friends, or by flies or other insects.

III. Is there such a thing as auto-infection, in the apparently healthy woman, causing sepsis in the puerperium?

The patient may be to all outward appearances healthy, but infected locally. The further questions then arise: Must an investigation be made into the state of the vagina in all cases during pregnancy; and are all leucorrhœas to be treated as of possible gonorrhœal origin? If, in the apparently healthy, it be possible for an ectopic gestation to become infected from the bowel, may it not be equally possible for the parturient uterus to become infected in a similar way?

IV. If auto-infection be a possibility, to what extent can the medical attendant control this cause of sepsis?

Granting the possibility, it would appear difficult for the doctor to do much by way of prophylaxis. But an attempt at disinfection of the vagina for some time before labour, or before rupture of the membranes, and the systematic emptying of the lower bowel with thorough cleansing of the pudenda and neighbouring parts, might to some extent lessen the risk in question.

V. To what extent would the susceptibility of the patient appear to be due to mental conditions?

This is a far-reaching and, no doubt, very debatable question. The old-established prejudice against allowing lying-in women to receive visitors or news probably had its roots in fact. It is only reasonable to suppose that in common with other infective diseases puerperal sepsis finds a readier foothold in tissues whose normal disease-resisting powers are lowered, and that the lowering of these powers may be brought about by mental depression, alarm, or undue excitement. If this be granted it might serve to explain in part the apparently anomalous fact that obvious septic complications appear as frequent amongst cases attended by fairly careful and skilful medical men as amongst those ministered to by the average "Mrs. Gamp." I am aware that this fact may not be admitted. One can surmise that whereas the doctor most often candidly acknowledges the presence of sepsis when it occurs, the midwife diagnoses it as "a chill," "milk fever," or such. Nevertheless, many, if not most, country doctors will concede that there appear to be as many deaths from this cause amongst cases attended by themselves as amongst those left to the care of the unskilled neighbour, and that they have as often to deal with sepsis in the former as in the latter class of cases. If it be so (one cannot bring statistics to bear upon it) I am prepared to explain it not by the "examining finger" but by the additional anxiety of mind acquired by most women who call in the services of the doctor.

In fact, the very calling in of the doctor is in itself an evidence of this anxiety in many cases. The French have an old saying that "when the doctor comes in, mother or child goes out feet first." It is obviously an exaggeration, but indicates the frame of the people's mind on this subject. I know that the filthy finger of the average midwife makes more vaginal examinations during labour than the, at least, comparatively clean one of the doctor; and in this connection I have not lost sight of the fact that medical aid is often sought after the mischief has been started by the nurse.

And again, why is puerperal sepsis in the wives of medical men as common as it is? It should be very *un*common, and yet we hear of it only too often. All the circumstances of these cases are against its incidence, except one. Even the greatest cynic will admit that the doctor will probably do his best for his own or his *confrère's* wife. He is no more likely to carry infection to her than to others. She has

Digitized by Google

the advantage of prophylaxis, cleanliness, antiseptic and aseptic precautions, and usually skilled nursing. That the doctor's wife should even fall a victim to puerperal sepsis is a very surprising thing unless considered along with the fact that she constantly hears of the cases that are not doing well—seldom or never of those that are, and, as well, is possessed of an undue fear of labour.

VI. Must every rise of temperature after labour (in the absence of some clearly separate febrile disease) be looked upon as indicating puerperal infection?

"Fevers," "chills," "ninth-day fever," "mild fever," "nervous fever," "reaction," etc., were very convenient names for passing rises of temperature. Few people use them now with any pretence to accurate diagnosis.

But I should suppose there is a wide diversity of opinion as to whether all "temperature cases" are manifestations of septic absorption. In the terms of the question above I cannot say that I look upon *every* rise as an indication thereof. One sees such rises occasionally in the absence of any abnormality of the state of the vagina or uterus or of their secretions. Nevertheless, I prefer to err, if err I must, rather in too often diagnosing puerperal fever than in doing so too seldom, though I know one's reputation is not improved thereby, and that the 2s 6d for the report to the local health board hardly compensates for the possible loss of practice.

When, within the first week of the puerperium, the woman's temperature goes over the hundred and she has a headache a rigor (even slight) and there is some abdominal tenderness, I look upon the case as one of "puerperal sepsis." But I have seen this occur without any factor or suppression of the lochia, and, on the other hand, I have seen these latter signs unaccompanied by any febrile or general systemic disturbance whatever.

VII. What are the precautions before, during, and after normal labour which a medical attendant should reasonably be expected to take against sepsis in his patient?

Answers might range from a lecture on aseptic surgery to the "ask for butter" principles of earlier times. My own practice is as follows: When the engagement is made I furnish the patient and nurse each with a printed slip of instructions to be followed. Unless there be cause to expect a difficulty, I do not visit the patient before I am called to the labour. Subject to the instructions on the slip the nurse is expected to do all that is necessary until the pains are sufficiently urgent, and to send for me so that I may be there by the time they recur every ten minutes or quarter of an hour; sooner if anything unusual occur or the membranes should rupture. When I see the patient I have the perinæum washed with hot soap and water containing about $\frac{1}{2000}$ of mercury biniodide, I put on a clean boiled diaper, inquire about the carrying out of my instructions, and if these have been neglected have them attended to at once if possible. My own hands are then scrubbed for at least five minutes in hot soap and water with $\frac{1}{2000}$ biniodide of mercury, my coat taken off and my shirt sleeves detached at the elbows. The biniodide solution, frequently changed, is kept at hand and a fresh scrub given to the hands from time to time and before each examination of the vagina. All instruments are boiled on the premises in a metal carrier in which I keep them. I do *not* douche the vagina before delivery as a routine practice. I examine per vaginam with the bed clothes raised quite out of the way, and take care to touch nothing, not even the pudendal hair, between the time my hand leaves the antiseptic solution and that at which my fingers enter the vagina. I endeavour to make out all I can at this examination and avoid any unnecessary explorations. Between times the diaper is kept applied to the perinæum. When the child is born, should there be a tear in the perinæum of as much as a quarter of an inch, I invariably stitch at the earliest practicable moment after the placenta is delivered. If forceps have been used I usually douche out the vagina with $\frac{1}{4000}$ biniodide solution. If anything has passed into the uterus, I douche that out; otherwise I do not make a routine practice of douching after labour. When the uterus is firmly contracted and all obvious hæmorrhage has ceased, I wash the pudenda and neighbouring parts with solution of biniodide of mercury $\frac{1}{2000}$ as hot as the patient can comfortably bear it, dry with a clean boiled towel, and apply a fresh diaper, which I pin back and front to the binder. As soon as practicable all soiled things are changed. In case there have been any stitching the perinæum is dusted freely with one of iodoform and seven of boric acid. I order a newly-boiled diaper every half hour while the discharge is free, and every four hours afterwards. I may add that of late I have made a practice of having the pudendal hair clipped short before I am called.

While I do not claim that this routine has any pretentions to completeness or perfection, I have found it to be all that is practically possible and more than is by any means convenient in most cases of the class with which I

Digitized by Google

have to deal, and at least one might claim for it that it appears more likely to achieve the desired end of asepsis than the, in many instances, filthy carelessness of the unskilled neighbour or midwife. But, does it really do so?

In a paper read before this Branch on August 29th, 1889, on "Puerperal Temperature," Dr. A. A. Hamilton quotes Winckel, d'Espine, and Grünevoldt as stating that lactation *does not* cause a rise of temperature. They attribute all temperatures to septic absorption. He remarks that most English writers look on painful distension of the breasts, constipation, stomach derangement, and *mental emotions* as capable of causing a rise. He describes his practice in regard to antisepis as follows: *Hands* washed thoroughly in soap and water, and afterwards in antiseptic lotion. The rinsing was repeated before each examination. *Instruments* in like manner. *External genitals* washed with antiseptic *after* labour. He used perchloride of mercury and salufer, or perchloride in glycerine. He quotes Döderlein as saying that the entire genital tract should be disinfected in every case (results under this system being only 70 per cent. normal recoveries), and Dr. E. S. Tait "that emotional disturbance may cause rise of temperature." Dr. Hamilton's very comprehensive and instructive tables of percentages show that antisepsis diminishes the chances of rises of temperature in all classes of cases. In the *whole* of 470 cases the percentages of "rises" was 6·38 per cent.; in *those only* in which antisepsis was practised, 4·54 per cent.

Dr. Chas. J. Cullingworth, Obstetric Physician and Lecturer in Diseases of Women at St. Thomas's Hospital, says in his 1897 presidential address to the London Obstetric Society:—"Puerperal fever is practically a thing of the past in our lying-in hospitals"—but "there has not been a corresponding diminution of mortality from puerperal fever in ordinary private practice." He adds that "It is well to bear in mind that the triumphs of our lying-in hospitals have all been won by the scrupulous use of *antiseptics*, and that sterilisation, which is the essential element in aseptic surgery, is impossible in midwifery practice." And again: "I firmly believe that if the simple antiseptic precautions, with which everyone is familiar, were conscientiously adopted, puerperal fever would be as rare in private practice as it is now in the best lying-in hospitals."—*Lancet*, March 6, 1897.

Dr. A. L. Galabin ("*Treatment*," Jan. 13, 1897), says: "Hands and non-metallic instruments should be first cleansed with soap and water and then immersed for a time in $\frac{1}{1000}$ corrosive sublimate; for metallic instruments $\frac{1}{500}$ lysol or $\frac{1}{500}$ formaline should be used. For a lubricant a glycerine sol. of $\frac{1}{1000}$ perchloride." "The vulva should be carefully cleaned, and afterwards swabbed with $\frac{1}{2000}$ perchloride." (He adds that it is doubtful if the vulva *can* be disinfected without shaving.) He advocates a single douche of $\frac{1}{2000}$ perchloride *always* after delivery, and states that New York Lying-in Hospital has abandoned douching in normal cases, but there they bandage the vulva in a pad soaked in 1% creolin emulsion and change every six hours. Galabin uses the douche in all cases, using $\frac{1}{1000}$ biniodide of hg.

C. R. Marshall, Professor of Materia Medica, St. Andrew's (*British Medical Journal*, October 11th, 1902, page 1158), states that as weak a solution as $\frac{1}{5000}$ of perchloride of mercury has caused death when used as a uterine douche, and one douche of $\frac{1}{3000}$ has been known to cause death.

Dr. Charles P. Jewett, of Brooklyn (in a paper read before the New York Academy of Medicine, *Boston Med. and Surgical Journal*, November 25th, 1897), says, *inter alia*: "This class of affection is . . . . strictly preventible, and the accoucheur is usually responsible for their occurrence." "Prophylaxis must begin many weeks before labour"; and amongst predisposing causes he names anæmia, syphilis, vaginal disease, diarrhœa, constipation, and auto-intoxication from the retention of excrementitious products in the system. He condemns douching, except in rare cases, as interfering with normal processes by which the parts are protected by the natural secretions. He says that "in order to treat a case intelligently" he advises the use of the speculum.

Dr. Berry Hart, physician to the Royal Maternity Hospital, Edinburgh, says: "As to drain poison, so ably advocated by Dr. Playfair as a cause of puerperal pyrexia in certain cases, I have so far only reached the Scotch verdict of 'Not proven.' Elsewhere he says: "Cases, therefore, should be notified as puerperal fever where one has the clinical features of a general, or threatened general, septicæmia. Sapræmic conditions and localised septic pelvic conditions need not be notified." And further: "The medical officer may advise the practitioner who has repeated septicæmia cases to deal with to cease midwifery practice for a little while, and make sure he is not by some error in practice actually causing it."—*British Medical Journal*, September 15, 1900.

(Read before the South Australian Branch of the British Medical Association.)

Digitized by Google

SURGICAL GLEANINGS.

By C. H. W. Hardy, M.B., Ch.B. (Melb.), Ballarat, Victoria.

I DESIRE to thank you for the compliment you have paid me in asking for a *resumé* of what has appeared to me during my recent trip to be of peculiar interest to the profession here.

In the construction of hospitals I found that where ground space was available the overlapping system was preferred, and where space was limited each storey (comprising doctors' and nurses' quarters, linen closets, storerooms and wards) was isolated from the general lift and stairway stack, as at the Maternity, New York. In heating, the continuous hot-water circuit was preferred; and at the Johns Hopkins Hospital, Baltimore, the air for ventilation purposes was heated by being passed through a steam-pipe coil, and the heating so regulated that the temperature of the ward could be gauged to a nicety, the outlet shaft being under the foot of each bed.

In London the ventilators contained a layer of cotton wool or gauze, and it was astonishing to see the quantity of dirt collected. These layers were damped in summer to cool the air. It was very pleasing to see the way in which every ward was connected by telephone and indicator with the office, so that the resident could be called and the service for which he was required immediately shown in each ward. Undoubtedly the circular ward is the best for children, being constantly flooded with sunlight and the centre available for play. In flooring I was greatly pleased with the cork, the patent of the Nonpareil Cork Co. It has been in use in the hall at the Johns Hopkins for some years, and as yet shows very little sign of wear.

The plainer and simpler the operating theatre the more it is preferred. The best light is that from one-half the roof, with windows at the foot of the table; and for artificial light four lights overhead in the form of a cross, about 1 ft. apart. At the Clinic of Surgery, Paris, electric lights are let into the roof at various parts, and the continuity of the surface maintained by small glass trap-doors, so that no dust can collect. Here also are two theatres—one for septic and the other for aseptic cases. The operating table should have a top of glass, tilted to the centre for the patient to lie on, and should be capable of being heated.

In sterilising the hands I still prefer the pot. permang. and ac. oxalic method, followed by hyd. perchlor., which is used in every country I visited. Either running water is preferred to wash in, or movable metal basins, capable of being sterilised by boiling before use, which hang on swivels over a large sink. In America a room containing a bath is set apart for the surgeon's use, where he dresses in a suit of linen, with white shoes and linen cap. Rubber gloves are used by both surgeons and assistants, and rubber finger stalls for rectal examination. The simplest way of sterilising water is that of two boilers, so that one can be boiled and cooled before operation, and the other boiled for operation. The use of the mop in the theatre certainly kept the floor much cleaner and drier. The temperature of the theatre is maintained at 85° F.

In America nitrous oxide is freely used for the purposes of examination and minor operations, and prior to the inhalation of ether. The administration of ether by the open method diminishes the struggling and cyanosis of the patient to a minimum. In chloroform anæsthesia the reaction of the pupil is constantly being observed, and the measurement of the diameter of pupil and quantity of chloroform used noted repeatedly. The anæsthesia is either induced in an adjoining room, or, if in the theatre, all visitors and those not there immediately engaged are asked to retire. This latter method has the great advantage that no movement of the patient is necessary once anæsthesia is induced. It is administered very slowly. And here may I draw attention to the necessity of having perfect and free ventilation in the theatre, and the advisability of sterilising the hands in an adjoining room or near an outlet, in order to reduce the danger of causing any chemical decomposition in the chloroform by the chemicals used or by the gases generated by their union. The open mask, covered with gauze, is preferred for the administration of chloroform.

In France, the silk, swabs, gauze, towel, and dressings are sterilised in separate boxes by steam heat, and the instruments by dry heat. The boxes are opened for the operator, who removes the instruments and places them on a sterile towel. The patient is placed on the operating table, and the part shaved, scrubbed, and washed by an assistant, who finally makes a lather of ethereal soap with sterilised shavings. The operator removes the shavings and lather by means of a sterile towel, and then in operating covers the handles of the applied pressure forceps with gauze, so that they are out of sight and out of the way. The assistant is the only one who is allowed to touch swab, instrument, or towel, and then only very occasionally. Perfect silence is insisted upon during the operation. This I also noticed in America, and was most favourably impressed by it. Elsewhere the instruments are sterilised by

Digitized by Google

boiling in soda solution. In Great Britain they are placed on trays in either sterile water or antiseptic solution, whilst in America they are placed dry on a sterile towel. The latter I like the better, for the drops do not interfere with one's vision, nor does the antiseptic tend to injure the tissues. With the exception of France the preparation of the patient is the same as with us.

All aim at preventing the loss of blood to the smallest amount possible. The German school ligate every vessel as it is cut, making the time much longer; whilst in France the press forceps are used for picking up vessels, and the clamp (like Dr. Doyen's) for crushing large masses, like omentum, before ligating. In Great Britain the silk ligature is used for large masses and pressure forceps for vessels. In America the pressure forceps of Dr. Howard Kelly's are curved so that when applied they lie out of the way. Dr. Kelly also prefers to pick up and ligate the vessels of large masses, and in the peritoneal cavity to cover the raw surface, after the vessels are ligated, with serous membrane, and so make it extra peritoneal.

Everywhere the least possible handling was allowed. Catgut seems to be, when properly prepared, quite strong enough for ligature material, and rarely any other is used in America; but there the gut is treated by cumol preparation, which is rather costly. In Dublin, at the Rotunda and St. Steven's, the catgut, after scrubbing and treatment by ether, is soaked in a 4% solution of formalin for 24 hours to harden, and is then washed in cold water, and is then boiled for five or ten minutes in water and put in a solution of hyd. perchlor. 1 part, boiled glycerine 250 parts, methylated spirit 1000 parts; or it is put into the solution after being washed, and is boiled in water just before operation. In Paris the catgut is prepared in naphthol.

Douching of the peritoneal cavity is now rarely performed. Some hold it to be contraindicated in abscess near to, or collection of pus in, the peritoneal cavity. One surgeon told me that whenever he used the douche in suppurative peritonitis the patient died. Careful wiping of the whole surface by linen swabs or wipes is preferred. In swabbing, sterile gauze without absorbent wool is used, and in wealthy hospitals sponges, which are only used once.

In closing abdominal wounds, undoubtedly the best method is that of suture layer by layer with buried catgut, either continuous or interrupted, and closing the skin incision by a subcuticular suture. Where this method has been in use, and the muscles penetrated by separation of their fibres, or retracted and the fascia incised underneath them, hernia is unknown. Dr. Halstead uses silver wire. In abdominal surgery the aim is to separate the muscle fibres and not to divide, and the rectus is made great use of when a very large incision is needed, either by displacement or separation.

May I now praise very highly the dressing in use at the Johns Hopkins Hospital: silver leaf, which has been sterilised between two layers of wood, with the dressings. This is bought in books at a painter's; the book is cut in half, divided at its hinge, and is ready to be sterilised and applied. The skin surface is wiped dry, touched with absolute alcohol or S.V.R., and three or four layers of silver leaf applied, with a final layer of the paper on which the leaf rested. Since this has been used, stitch abscess has been unknown. I have tried it since my return on some dozen cases, and have determined to adopt it for the future. On its removal on the tenth day the wound has invariably been healed. Gauze and cotton-wool is applied over all, and then perforated strapping, as being less irritating. The bandage (the many-tailed is preferred) is laid either on the bed or stretcher to ensure its being dry, and all risk of soiling is avoided. In applying a spica to the hip a triangular wood rest is used, with its apex upwards, for the patient's sacrum to rest on. Only those who have held a patient's pelvis up know what a relief this rest will prove. Dr. Haughton uses two thin iron bars, which cross each other between the scapulæ, so that the patient lying on them has one turning down underneath each leg. With a patient lying on these it is a very simple matter to encase the body, pelvis and legs in plaster. The bars are removed by simply turning them on one side and withdrawing.

In Paris I saw M. Gosset, professor agrégré at La Pitie Hospital, do two almost complete gastrectomies. He made a median incision in the Trendelenburg position, crushed the omentum with Doyen's clamp, and ligated the crushed portion *en masse*. He then applied two pairs of Kocher Pean's straight forceps, one gripping from the smaller curvature downwards, and the other from the larger curvature upwards, so that the points overlapped and yet left a small space between their parallel ends. This allowed of a doubling over of the clamped portion and yet effectually prevented escape of contents. Before incising the stomach the peritoneal cavity and incision were carefully shut off by gauze packing. The serous coat was first incised, and then the muscular and mucous coats. The bleeding vessels were caught by these pressure forceps (Terrier's).

Digitized by Google

After being carefully wiped the muscular and serous coats of the stump were approximated by a continuous suture being converted into a buttonhole suture for fixation purposes every fourth or fifth insertion. The stump was then infolded and sutured with interrupted Halstead sutures. After treating the pylorus similarly, a coil of duodenum was picked up, and after making an opening through and anchoring the omentum to the stump at the œsophageal end, a short circuiting was carefully made between the stump posteriorly and the duodenum. The omentum, which completely surrounded this anastomosis, was now further anchored, and made a sure and safe protection. I saw these patients two days after, and they were quite cheerful and had had no rise in temperature.

M. Gosset also, on my request, kindly performed a hysterectomy. Starting at the left broad ligament, he tied the ovarian and uterine arteries left and right as they appeared, and stitching the peritoneum together made the raw surface extra-peritoneal. No clamps were used.

Dr. Doyen kindly permitted me to be present at his private hospital on his operating day. Amongst other things he removed hæmorrhoids in what was to me a new method. He first passed the suture with a needle on both ends, removed the hæmorrhoid, passed both needles at the further end of the incision, and tied the suture, thus approximating the cut edges and stopping hæmorrhage at the same time. He then removed the next hæmorrhoid, and passed the needles, tying the suture as before, and so on till all were removed. I saw him use his clamp for large masses of omentum.

Professor Guyon, of the Neckar, was most careful in the thorough sterilisation of the penis and meatus by a hard rubbing with a swab and hyd. perchlor. solution. A square of gauze or oilsilk through which the penis passed was placed over the unshaven pubes. The penis is held with gauze between it and the fingers. The urethra was well washed out with boric lotion by a syringe, and then was the catheter used, and after carefully washing out the bladder and examining each, was hung. The sound lithotrite or cystocope was asked for. Professor Guyon's catheter, of quite a different shape to the English, is rapidly gaining favour.

At the St. Peter's Hospital, London, I saw much the same technique carried out by Messrs. Freyer and Hurry Fenwick, and was much struck by the height to which the pelvis was raised for sounding and litholapaxy. Mr. Hurry Fenwick kindly showed me a suprapubic prostatectomy, in which, using a caisson, he entered through the capsule on the right side, and shelled out the gland through the one opening. There was no bleeding of any consequence, though he was careful to touch with a solution of argent nit. afterwards. The hæmostatic bladder forceps shown are his, and are easily supplied through a speculum, and are so arranged that the speculum can be removed and forceps left applied. The fact that the prostate is encased by a sheath, and that between this sheath and the true capsule which envelopes both sheath and prostate the prostatic plexus of veins and the larger branches of the arteries lie, has made what was a most dangerous and fatal operation now a comparatively safe one, and the possibility of preserving the urethra intact almost certain.

Professor Albarran, of the Hôpital Neckar, through a perineal incision, separates the prostate from the rectum and then divides the posterior capsule of the prostate in the middle line, the lateral lobes are removed piecemeal and the central lobe enucleated by the finger through an incision in the membranous urethra.

Dr. Alexander, of Philadelphia, through a perineal incision, opens the membranous urethra and dilates the prostatic urethra; with the finger he breaks through the true capsule high up over the lateral lobes and enucleates the glands. The perineal route is preferred on account of its easy drainage.

Mr. Freyer, of St. Peter's Hospital, London, through a suprapubic incision, carefully makes an incision in the most prominent part of the right lateral lobe and with his finger, the prostate being well pushed and steadied by the assistant's fingers in the rectum, enucleates all three glands, one after the other, through the same opening. Remembering the vascular supply, one cannot but be struck by the marvellously small amount of bleeding. A catheter is always introduced and left in the bladder as a guide for operation, and is tied in afterwards by means of adhesive plaster encircling the penis.

Dr. Young, of Baltimore, uses his modification of the Bottini prostatic cautery, which, shaped just like a lithotrite, has a female blade, the shoulder and beak at the distal end of which is made red hot by an electric current. The female blades are of three sizes. The instrument is passed beyond the prostate and drawn back till the beak rests on the prostate; it is turned so as to sear through the centre and lower section of each lateral lobe in turn. The female blade is drawn through very slowly, taking about two to three minutes for three centimetres on its outward course, and

Digitized by Google

half the time on its return journey, whilst the finger in the rectum gauges the limit of safety and the extent of the cauterisation. A stream of cold water is turned on as soon as electric wires are connected. Dr. Young kindly allowed me to be present during one operation, when the bladder and urethra were anæsthetised by the local application of cocaine solution.

Of all these operations I prefer that of Mr. Freyer, and am satisfied that a new era of life is opened for those who suffer from enlarged prostates and residual urine.

It seems that glycosuria and albuminuria are not dreaded by surgeons nearly so much as they were, but their presence makes the surgeon most careful that his technique is thoroughly aseptic.

Both in London and America internal urethrotomy is preferred. The Otis is the favourite American instrument and the Maissoneuve's the English. The urethroscope and cystoscope convince one of the uncertainty of thorough work without them. In calculus of the bladder without obstruction, litholapaxy is preferred, and the Miltous lithotrite shown is the latest; but where enlarged prostate is present suprapubic lithotomy is chosen, as prostatectomy can be performed at the same time. Urinary fever following the passage of instruments or urethral operation is attributed to septic infection through the urine. At St. Peter's Hosptal the urine is sterilised by administering internally, for a day or two previous to operation, urotropine or borocitrate of magnesia; or, when immediate operation is necessary, by placing the patient on the same drug and leaving in the bladder a small quantity of a solution of either boric acid or weak hydrag. perchlor.

Dr. Haughton, of Dublin, speaking of the difficulty of closing the femoral ring in hernia, stated that he now invariably makes use of Cooper's ligament and the pectineal fascia with great success. Unfortunately Cooper's ligament is difficult to find. Professor Gosset stitched the pectineal fascia to Poupart's ligament. Dr. O'Connor, of Buenos Ayres, in inguinal hernia, makes use of the same idea by using Gimbernat's ligament and the conjoined tendon. An admirable way of keeping the penis out of the way is to stitch the foreskin to the opposite thigh.

In knee injuries the joint is now opened, especially in fracture of the patella, special care being taken that the technique is thoroughly aseptic.

At the Johns Hopkins Hospital, Baltimore, one is most agreeably pleased by the very thorough aseptic technique. Dr. Howard Kelly kindly gave me all the opportunities he could both here and at his private hospital for seeing work. A rule is made to ask the patient whether there is any objection to the presence of onlookers, and the patient's wish is always observed. The fishhook curved needle, the pressure forceps, the long dissecting forceps, and the needle-holder, all Dr. Kelly's, have special advantages which make them a necessity to every abdominal surgeon. To see Dr. Kelly do his operation for the repair of the ruptured perineum convinces one of its superiority over others. I have adopted this operation for some three years now with most satisfactory results.

In kidney surgery, he, placing the patient on the face, makes the curved skin incision over the lumbar triangle, and then, discarding the knife, burrows a way through the kidney fat which is seized by pressure forceps, and grip after grip taken till the kidney presents at the wound. The operator must now remember that he has rotated the kidney, and correct this position by separating the fat from the kidney. If the kidney is to be opened, it is drawn out on to the loin and an incision made through its substance "parallel to the longitudinal white line, 1 cm. away from it, and on the same side of the kidney where the palpating finger feels the lesser number of vessels, in the majority of cases on the posterior surface." Thus one gets directly in the kidney pelvis. The suturing of the kidney adopted is that known as "the mattress." Until the kidney is brought out on the loin it is not handled at all, so that if it is only necessary to suture it to the muscles for fixation purpose it need not be handled.

In nephropexy, Dr. Kelly, recognising the ease with which a suture tears through the kidney structure and capsule, maps out an imaginary triangle on the kidney, introduces his suture at the apex, bringing it out at one of the basal angles ¾ in. from the point of entrance, introduces it again ¼ in. away from the exit, and brings it out at the other basal angle, again reintroducing it near its last exit, makes it come out near to its original first point of entry at the apical angle. The two free ends are now passed through the quadratus lumborum as high as possible, and on being drawn taut a triangular surface is approximated to the muscle surface. This suture has never been known to tear out. A second reinforcing similar suture is always inserted lower down. A portion of the fat is cut off and the remainder sown to muscle to prevent rotation. The first lumbar nerve must be carefully watched for and avoided.

In abdominal surgery, after examining and measuring appendix, the hand is passed into

Digitized by Google

the peritoneal cavity, and the ascending colon, kidney, liver, gall-bladder, etc., examined down to sigmoid flexure, and then the bladder, uterus, and appendages, so that if any pain is complained of at a subsequent date the condition of all these organs is known. Small œdematous cysts of the ovary and of the broad ligament are simply laid freely open. The uterus is always stitched up to the peritoneum after perinœorrhaphy. To drain Douglas' pouch an assistant thrusts a pair of forceps through between the protecting fingers of the operator in the peritoneal cavity. The forceps are then opened and the packing introduced. The whip suture is very freely used wherever the peritoneal surface is broken.

The continuous bath at 95° F. is freely used in all cases of irritating or offensive discharges, cystitis, and burns. The patient is lowered into the bath in a sheet, the sheet being clamped to the bath sides.

In appendicitis, on all sides the view that each case should be treated individually is being rapidly adopted. The Americans have ceased to operate at the outset of symptoms, as experience has shown that it is far safer and wiser to wait, if possible, till the quiescent stage; they prefer to wait until after a second attack. England is advised to operate after a first attack, as a second attack is almost certain to follow, and it is questioned whether it is right to allow a patient to encounter a second and greater danger. Whenever pus is suspected immediate operation is recommended. When adhesions are so dense that it is impossible or inadvisable to separate the appendix, Howard Kelly ligates the appendix close to the cæcum, and then by invagination excises the mucous coat of the appendix, thus removing all source of danger. Sir Frederick Treves, I see, draws attention to the situation of the ileocœcal valve, immediately below McBurney's point, and accounts for pain by the fact of that "orifice, as all other orifices, being peculiarly well supplied with nerve fibres," and being "peculiarly sensitive;" and states, excluding ultra acute cases and pus cases, "it is seldom imperative that an operation should be discussed until about the fifth day." In septic cases large quantities of fluid are administered, both internally and by subcutaneous injection, to weaken the concentration of the toxines and to make free use of the kidneys to get rid of them.

Before opening the gall-bladder, Dr. Kelly grasps the gall-bladder between the fingers of one hand and presses the bladder well into the wound, and so prevents contamination.

Dr. Bernard Roth kindly invited me to be present during the exercises whereby he treats cases of spinal curvature. No splint or support of any sort is allowed. The muscles are so developed that they take the place of splints. These exercises are always under the immediate supervision of Dr. Roth, and are so arranged as not to be tiring but of great amusement to the children.

The Röntgen ray treatment affects us much more nearly, for we owe a very deep debt of gratitude to our fellow citizen and hon. member of this Society, Mr. T. R. Treloar, for the very able researches he has made; and it is unfortunate that the unavoidable postponement of a portion of the work allotted to our last quarterly meeting now makes a large amount of the results of his work and conclusions lose the place of priority in publication. He has been able to produce X-rays having two distinct properties, namely, of destruction and healing. These, by his special tubes, can be produced separately, according to the demands of the case under treatment. He also states that he has never yet produced dermatitis. In all the X-ray departments I have visited I have not seen better results than those obtained by Mr. Treloar, and very rarely as good. To-night you have heard from the various medical men the reports of the cases under their charge and their opinions of the results. May I quote Mr. Thos. Bryant, M.Ch., F.R.C.S., Consulting Surgeon, Guy's, speaking of operations for mammary cancer, p. 1203, B.M.J. 1902, 17th May, says:—"In cases of recurrence favourable for operation, unless the removal of the ovaries can be shown in the future to be successful, the X-rays should be employed, for the benefit which has been derived by this treatment when judiciously applied by men of understanding has, in my own experience, been so successful as to raise hopes which I had hardly liked to fully express, and at the same time seems to be free from danger or serious consequences when utilised by those who know the dangers of penetrating rays carelessly employed and the difficulties with which this practice bristles. I must, however, add that the influence of the rays, to make them effective, must be maintained for several months after it has seemed to be beneficial; a three months' course, with about three applications a week, appears to be the shortest from which any permanent good is to be expected, and this treatment is full of hope." The X-rays are reported to have been successful in scirrhus epithelioma, the latter even when recurrent, in lupus vulgaris, etc., and the healing properties have been utilised in old intractable sinuses and fistulæ. May they not be of use in large

Digitized by Google

suppurating cavities? One very great blessing is that the X-rays ease pain. The resulting scar does not seem to have the tendency of ordinary scar tissue to contraction. May this not be of great service in the case of extensive burns?

At once let it be thoroughly understood that light therapy is but a method of treatment in the hands of the surgeon, to be utilised either separately or in conjunction with surgical procedures, and experience is showing that the surgeon can greatly lessen the time of treatment, and, maybe, ensure more complete success. In plate work, soft tissue tumours and stone in the kidney can be shown with almost certainty, and distance between the ends of severed tendon measured. By means of mirrors a stereoscopic picture is presented which shows the relationship of the foreign body to the adjacent structure. Thus in the head one can distinctly see and determine the structures at various depths not only in but completely through the head, and so ascertain exactly where the bullet lies.

(Read before the Ballarat Branch of the British Medical Association.)

REVIEWS AND NOTICES OF BOOKS.

"Rio Grande's Last Race and other Verses." By A. B. Paterson. Sydney: Angus & Robertson. 1902.

This new collection of 46 poems by the author of "The Man from Snowy River," which has been received from the publishers, will be welcome to Mr. Paterson's many admirers. The verses have already appeared separately as contributions to papers in various parts of the world, but the complete collection of them in the present volume will not on that account be the less acceptable.. Mr. Paterson has already done much, and in this collection he does more, to rescue Australian poetry and romance from a reputation for morbid sentimentality. In the "Song of the Future" he sings:—

> "And some have said that Nature's face
> To us is always sad; but these
> Have never felt the smiling grace
> Of waving grass and forest trees
> On sunlit plains as wide as seas."

And again:

> "For us the bush is never sad:
> Its myriad voices whisper low,
> In tones the bushmen only know,
> Its sympathy and welcome glad."

And throughout the poems, though nothing of the true pathos of life in the bush is lost in its portrayal, the brighter and more humorous side predominates. Among the humorous poems, "Father Riley's Horse" is perhaps the most conspicuous; and in "The Passing of Gundagai," some of the less attractive characteristics of Australian life are reflected in their true inwardness. About a dozen of the poems are inspired by the author's experiences with the Australian troops in the South African war. The Imperial spirit rings in these, especially in "With French to Kimberley." Johnny Boer, in the verses so entitled, gets credit for being a bad enemy: "It ain't a game," the writer says, "that grows on us; there's lots of better fun than charging at old Johnny with his little Maxim gun." It is to be hoped that Mr. A. B. Paterson's new and distinguished position as Editor of the *Evening News* will not stifle the spirit which has enabled him to enrich Australian literature with these and his earlier verses. R.H.T.

Purulent Nasal Discharges: their Diagnosis and Treatment. By H. Tilley, M.D., B.S. (Lond.), F.R.C.S. (Eng.), Surgeon to the Throat Hospital; Lecturer on Diseases of the Nose and Throat, London, Post Graduate College and Polyclinic. London: H. K. Lewis, 136 Gower-street, W.C. 1901. Price, 4s.

The importance of detecting chronic nasal suppuration has only been recognised of late years even by specialists; but as we now know how many and various symptoms may be traced to this cause, it becomes the duty of every general practitioner to prosecute a thorough examination of the nose in all cases of chronic cough, vocal weakness, throat irritation and neuralgia—symptoms which formerly may have been wrongly attributed to causes less amenable to treatment.

The book under notice is an admirable guide to this end, as well as for treatment. It contains less than 120 pages, is inexpensive, and well illustrated both by means of photographs of anatomical preparations and woodcuts of instruments. Dr. Tilley is a high authority on his subject, and his view, although differing in many respects from German and American rhinologists of repute, are the outcome of personal experience, and worthy of every respect. G.T.H.

Manual of Surgery for Students and Practitioners. By William Rose, M.B.M.S. (Lond.), F.R.C.S., and A. Carless, M.S. (Lond.), F.R.C.S. Price, 24s. London: Baillière, Tindall & Cox. Sydney: L. Bruck.

This excellent book has already arrived at its fifth edition, a fair evidence of the fact that the authors are determined to keep pace with the rapid advance of surgical knowledge. For a work of this kind it is extremely comprehensive, and special effort seems to have been made to deal, as fully as space will admit, with those subjects which most commonly come under the notice of the general practitioner. The illustrations on the whole are very good, and if any fault can be found at all, it is one which is very common, and that is that extraordinarily exaggerated examples of certain conditions are displayed. These are apt to perplex a man who is supposed to recognise milder forms or earlier stages of such conditions. However, the book is very readable, and probably one of the best of its kind. It might be said to be an all-round, up-to-date book on general surgery. H.C.H.

The National Trustees Company and Mr. James Stevens, the executors of the late Dr. E. Hulbert Williams, of Fitzroy, Victoria, have, in accordance with his will, allotted the following amounts to medical charities:—Melbourne Hospital, £7 3s; Women's Hospital, £7 3s; Alfred Hospital, £7 3s; Children's Hospital, £7 3s; Eye and Ear Hospital, £7 3s; St. Vincent's Hospital, £7 3s; Austin Hospital for Incurables, £7 3s. These amounts are in addition to the sums of £10 each already paid to the same charities.

Digitized by Google

THE AUSTRALASIAN
MEDICAL GAZETTE.

SYDNEY, 20TH MARCH, 1903.

THE SANATORIUM TREATMENT OF PULMONARY CONSUMPTION.

LAST month witnessed the opening of the first sanatorium in New South Wales, built strictly on modern lines, for the treatment of the poor suffering from pulmonary tuberculosis. This marks the completion of the first item in the programme sketched out by the committee of the Queen Victoria Homes for Consumptives' Fund so far back as 1897.

Various circumstances have contributed to the delay in the erection of this sanatorium. The financial response to the appeal for this memorial of the Diamond Jubilee of her late Majesty Queen Victoria was inadequate for the completion of the scheme as suggested. Then the Home at Thirlmere, which, since the year 1893, had been conducted by a committee and was dependent on the charity of the public, was taken over by the committee of the Queen Victoria Homes for Consumptives' Fund, and this involved a considerable drain on their resources. It was further considered desirable, before commencing the erection of a sanatorium, that the fullest information should be obtained on the subject. Advantage was taken of the visit of Dr. SYDNEY JONES to the old country in 1898-9, and that gentleman, who from the first has taken the deepest interest in the matter, visited all the important sanatoria in Great Britain and the Continent of Europe, and acquired full particulars as to construction, mode of working, and results obtained. This information was subsequently embodied in a report to the committee, and has been made full use of in the construction of the new sanatorium. After careful consideration, the site at Wentworth Falls was selected, and the plans, prepared by the honorary architects, Messrs. H. C. KENT and G. SYDNEY JONES, were adopted and the building commenced.

Those who were privileged to attend the opening ceremony, performed by his Excellency Sir HARRY RAWSON, could not fail to be struck with the wisdom of the committee in their selection of so admirable a site, and in the excellence of the arrangements in the sanatorium; a full description of these appears in another part of this issue.

Meanwhile we shall watch with the deepest interest the results of the treatment at this institution. Only those suffering from the disease in the early stages will be admitted, so that the sanatorium may be put to its best use in seeking to compass the cure of those still in a curable stage. The results obtained at sanatoria in Great Britain and Europe are remarkable; and, as Dr. SYDNEY JONES has pointed out on several occasions, the proof of this is to be found in the action of the Industrial Insurance Companies in Germany, who find it to their financial advantage to expend their funds in the building of sanatoria rather than in the providing sick pay to their members suffering from pulmonary phthisis.

We have yet, however, in this country to learn how far our climatic conditions adapt themselves to the complete system of open-air treatment in vogue in the sanatoria in the old world. Sudden variations of temperature are more frequent here, and in summer the extreme heat is on occasions most trying to sufferers from pulmonary phthisis. Fortunately, the sanatorium at Wentworth Falls is at such an elevation above sea level that the nights are cool, and it is away from main roads and centres of population likely to contaminate the air with dust or other impurities. Duststorms do, however, occur occasionally in the west in dry seasons, and the air, saturated with an almost impalpable powder, is irritating to the lungs of persons afflicted with lung disease. But, when all is said, it must be remembered that

Digitized by Google

these drawbacks have been experienced in the past by all phthisical patients who have sought restoration to health by a sojourn in the inland districts and yet have been completely restored to health. It cannot be that any less satisfactory results will be obtained in a properly constructed sanatorium, where the patients will have skilled nursing and constant medical supervision.

INFANTILE MORTALITY IN NEW SOUTH WALES.

During the last session of the New South Wales Parliament the Hon. Dr. C. K. Mackellar introduced into the Legislative Council a bill entitled "Infant Protection Bill." This only reached the formal second stage, but the discussion upon it furnishes some interesting reading.

Dr. Mackellar in his introductory speech pointed out that the basic principle upon which the bill was founded was the fact that children separated from their mothers in the early months of life die in much larger numbers from purely preventable causes than children carefully nursed by their mothers, and the main object of the bill was to provide against these preventable causes of infantile mortality.

The figures adduced by Dr. Mackellar are certainly appalling. The general public have been horrified in recent years at the disclosures of the enormous infantile mortality in the British camps for the Boer refugees in South Africa. In these something like 30 per cent. of the Boer children died. But here in the midst of a civilised community (are we as civilised as we boast?) we have a mortality during the last five years of 38·9 per cent. at the Ashfield Infants' Home, of 58·5 per cent. amongst children born in the Benevolent Asylum, and of 83·3 per cent. at the Waitara Foundling Home! Surely in the face of figures such as these it is time some steps were taken to prevent this frightful waste of infant life.

There are, no doubt, two important factors which conduce to this mortality. The first is the separation of the infant from its mother, or at any rate the difficulty in securing the proper nursing of the infant by its mother. Unfortunately, in a large percentage of the cases the children are illegitimate, and their death is a relief to the mother. Hence, there is no earnest attempt on the part of such mothers to nourish and cherish their children, and the infants suffer in consequence. Artificial food is at best a poor substitute for the mother's milk, and cannot, of course, supply that other important factor, namely, the cherishing care of a true mother towards her child; and in spite of all care the delicate digestive tract of the infant becomes the seat of chronic disease, and the child dies from "marasmus." But another factor, which we venture to think has been to some extent overlooked in the past, and which conduces to excessive mortality among infants collected together in large numbers in institutions, is the fact that the disease which attacks the digestive tract, the gastro-enteritis which leads to marasmus, is undoubtedly due to one or more micro-organisms, and is really a contagious disease. The great advantage in the boarding-out system of young infants in suitable homes is that every care and attention can be bestowed on each individual child, and the danger of contagion does not exist. We submit that, in accordance with the latest clinical and bacteriological investigations, the disease gastro-enteritis should be regarded in the same light as typhoid fever or dysentery; and if this fact be fully recognised, and every care be taken to disinfect feeding bottles, utensils, bed-clothing, etc., then a decided diminution in the mortality from this terribly fatal disease in large institutions will be secured.

We hope that Dr. Mackellar will amend his bill in such a way that large institutions for the farming of babies apart from their mothers will not be allowed to exist, and that unmarried women admitted to maternity homes for their confinements must be retained there, or at any

Digitized by Google

rate in some way kept under proper supervision, so that the infant shall not suffer from want of the proper nourishment and attention at the hands of its mother. There surely could be no objection raised to these two principles by any right-thinking person in the community, and we venture to think that a short bill embodying these provisions, and not burdened with debatable matter, would readily pass the Legislature of this State, and be of immense assistance in the direction aimed at by Dr. MACKELLAR.

THE MONTH.

The Annual Meeting of the N.S.W. Branch of the British Medical Association.

WE desire to draw special attention to the arrangements which have been made in connection with the annual meeting of the N.S.W. Branch of the British Medical Association. With the twofold object of securing a more deliberate scrutiny of the ballot papers, and of being able to announce the result of the election at a full meeting, it has been arranged to open the annual meeting on Thursday, March 26th, at 8.15 p.m., at the office of the Branch, 121 Bathurst-street. On this occasion the chairman will receive the ballot papers and appoint scrutineers. No other business will be transacted, and the meeting will be adjourned to the following evening. The adjourned meeting will be held at the Royal Society's Room, Elizabeth-street, on Friday, March 27th, at 8.15 p.m.

Public Abattoirs for Adelaide.

A member of the Board of Health, Adelaide, writes:—"The establishment of public abattoirs in the city of Adelaide is a matter of great importance to the citizens, both from financial as well as health considerations, and it certainly has not met with that amount of encouragement it deserves. That disease and death among human beings is often disseminated by means of diseased meat is well known to the average citizen, but he does not trouble himself to take any precaution to ensure (as far as he may be able) a clean meat supply to his own household; in fact, as a unit he could not do much—hence it devolves upon a representative body such as the city council to protect him. That we are lamentably behind the age in this matter is beyond dispute. It is not creditable to us as a community that we have not advanced with the times, and this year should see something tangible established. There is no difficulty of an insuperable character once the necessary Parliamentary sanction has been obtained."

The Use of Antitoxin in Diphtheria.

We would direct attention to a letter in our correspondence columns from Dr. J. M. Gill, Honorary Physician to the Diphtheria Branch of the Hospital for Sick Children at the Glebe, Sydney, on this subject. It would appear from this letter that there is a lamentable want of attention to the necessity of using antitoxin in the earliest possible stage of diphtheria. The utility of this remedy has been proved beyond all question, and we might say it is almost criminal to neglect to use it in every case of diphtheria Even if the diagnosis be at first uncertain the administration of a dose of the antitoxin will do no harm if it should be subsequently found that the patient was not suffering from this disease. We hope practitioners will take note of Dr. Gill's remarks.

A New Women's Hospital for Sydney.

At the annual meeting of the Sydney Women's Hospital and Dispensary the report which was presented stated that an amalgamation had been arranged with the Sydney Benevolent Society, and upon approval of the scheme by that meeting the two institutions would merge into one and be controlled by a board of directors composed of a president, four vice-presidents, and 16 directors; two of the vice-presidents and four of the directors being nominated by the Women's Hospital, and two of the latter, with the consent of the Government, to be life members of the new board. It had also been arranged that the remaining members of the board of the Women's Hospital should be elected a committee subsidiary to the conjoint board to administer the details in connection with the women's department in the new organisation. Land at Glenmore-road had been secured, and plans for the erection of a new building had already been prepared.

Sydney Civil Ambulance and Transport Brigade.

The report of ambulance work conducted during the 12 months ending January 31st, 1902, is as follows:—Medical and surgical transports on practitioners' certificates and casualty transports inclusive, 1858; patients conveyed to hospitals or homes, other than in ambulances, 28; accidents at sports meetings, 143; treated at ambulance stations, according to first aid, and afterwards directed to a medical

Digitized by Google

practitioner or to hospital for further treatment, 383; conveyed to the morgue, 38; sundry minor accidents, 11;—total attended during the year, 2461 cases.

The records of the brigade now disclose that during the seven years the organisation has existed no less than 10,890 persons—suddenly maimed or otherwise injured, victims of sudden illness in the streets, and invalids—have received the benefit of the institution's ministrations, and by its assistance an incalculable amount of suffering has been alleviated, and many lives have been saved.

The Prevention of Consumption in Victoria.

Mr. Zwar, the hon. secretary of the Victorian Association for the Prevention and Cure of Consumption, claims that the association has already done valuable work. It has addressed municipal authorities all over the State on the subject ef prevention, distributed a large number of circulars, advised hospital committees, and prepared a short circular in popular form for distribution among consumptive patients. Recognising that the sanatorium accommodation now provided is miserably inadequate, the association approached the committee of the Victorian Sanatoria with offers of assistance. A joint committee was formed, and journeys were undertaken with the object of determining the best possible site for a sanatorium. The result was the strong recommendation by the association of a district regarded as eminently suitable; but there the matter rests, and the health authorities have shown themselves altogether apathetic.

Proposed Hospital for Consumption in Sydney.

We are glad to note that the New South Wales Government are now alive to the urgent necessity which exists for the construction of a hospital for advanced cases of consumption in this State. The residents along the railway line from Milson's Point to Hornsby are much exercised in their minds in consequence of a proposal to establish this institution near Colah station, and on March 6th a public meeting was held in the Hornsby School of Arts to protest against it. The speakers urged that the establishment of a consumption hospital in the neighbourhood was a menace to the health of the inhabitants, and would lead to a deterioration in the value of property. A great deal of unnecessary alarm has been created in the district since it is well known that consumption hospitals *are not* in any sense a danger to the health of the inhabitants of the neighbourhood, witness the Hospital for Consumption at Brompton, London, and the City of London Hospital for Diseases of the Chest at Victoria Park. We are anxious to see such a hospital built as soon as possible in a suitable locality, and of the sites which so far have been suggested by the Government the one near Colah is the most suitable.

Australian Natives' Association for Women.

A meeting was held at the Sydney School of Arts on March 10th for the purpose of forming an Australian Natives' Association for Women. It was stated that an effort was being made by a number of ladies to form an A.N.A. which would confer on women the same benefits and privileges as men received from their particular association. It was decided to form a Women's A.N.A., to consist of an unlimited number of members, who are to be divided into three classes—benefit, honorary and live honorary members. A committee to formulate rules was appointed. If the association is to be formed and conducted on the same lines as the A.N.A. the attitude of the medical profession in this State towards it must be one of uncompromising antagonism, and we hope medical men will decline to be drawn into signing any agreement as medical officers to it.

Women Doctors.

A week or two ago representatives from the Sydney Women's Progressive Association waited upon Dr. Ashburton Thompson, President of the Board of Health, and expressed a strong wish that women doctors should be appointed to all public hospitals. After listening to the arguments advanced in support of the request, Dr. Thompson pointed out that he had appointed a woman doctor to the Coast Hospital. He added that in general his sympathies were with the views expressed by the deputation, but directed attention to the fact that he had no control over any of the hospitals other than those referred to. It is somewhat quaint to read alongside of this "forward movement" the report of such a discussion as has taken place at the German Medical Congress on the admission of women to practise in that country. It was unanimously decided that medicine would "suffer in the public esteem" if it were open to women. Thence it followed that it should not be so opened. The delegates also protested against "any attempts to make the conditions of study or entrance less onerous to suit female capacity!"

Digitized by Google

BRITISH MEDICAL ASSOCIATION NEWS.

PROCEEDINGS OF AUSTRALASIAN BRANCHES.

New South Wales.

A SPECIAL general meeting of the New South Wales Branch was held on February 13th, 1903, at the Royal Society's Rooms. Present: Dr. G. E. Rennie (president), in the chair, and about 40 members.

The PRESIDENT explained that in October last a meeting had been held to consider the report of the Council on the question of fees for certificates for life insurance. After discussion, the report was referred back to the Council of the Branch for further consideration. At a meeting held in August last the question of starting a Lodge Practitioners' Defence Fund had been discussed, and it was resolved that a referendum should be taken of the members of the N.S.W. Branch of the B.M.A. and also of all medical men in the State eligible for election to it; the result of such referendum to be reported to a subsequent meeting. The present meeting had been called, therefore, to deal with these two matters. The report of the Council on the question of fees for insurance certificates was the recommendation that the fee for examination of proponents for industrial insurances for policies under £100 may be 10s 6d each, and for all policies of £100 or over the minimum fee be £1 1s.

Dr. SINCLAIR GILLIES moved that the report be adopted.

Dr. CRAGO seconded.

After some discussion the motion was carried unanimously.

Mr. HANKINS, the honorary secretary, explained what had been done in reference to the establishment of a Lodge Practitioners' Defence Fund. Six hundred circulars had been issued to the members of the N.S.W. Branch of the B.M.A. and to all medical men eligible for its membership in the State. The circular embodied the scheme for approval, and asked for an expression of opinion on the question of starting such a fund, and further, whether members were prepared to subscribe to it, and the amount they would subscribe. Replies had been received from 198 members, 27 of whom were not in favour of the proposal, the total amount promised as an annual subscription being £200. In advocating the scheme, the hon. secretary pointed out that if the fund were started it would probably increase during the year, and possibly others, at present quite indifferent to the question, might be induced to join in making it a success.

The PRESIDENT apologised on behalf of Dr. Furnival, the originator of the scheme, for his unavoidable absence from the meeting.

Mr. HANKINS moved, and Dr. CRAGO seconded, that the fund be started.

The PRESIDENT said that the Branch during recent years had taken a determined stand against the encroachments of medical aid societies which had striven to dominate the profession, and in carrying on this struggle some medical men had been called upon to resign appointments they held in lodges, and had incurred considerable financial loss. He held it necessary, therefore, that a fund should be started to assist those who, at the instigation of the Branch, were asked to resign such appointments, and thus have at hand the means for compensating them.

Dr. FIASCHI had not always been in sympathy with the policy of ostracism taken by the Branch, but in the present instance he was heartily in accord with the proposition before them. If medical officers of lodges were called upon to resign the positions they held in them, they should not suffer for obeying the order. The movement was one in the right direction, and he had much pleasure in supporting the motion.

Dr. JAMIESON, though in perfect sympathy with the scheme, yet deemed the support already promised it to be quite inadequate to establish a fund on a satisfactory basis. He could not see how a man who gave up a valuable appointment could be sufficiently compensated.

Dr. SINCLAIR GILLIES had great pleasure in supporting the scheme. He regretted the present apparent apathy of the profession in the matter, but many successful schemes had been started with a smaller income than £200. The fund would be an encouragement to men to do what was right, and it should be started if only to combat the backbiter who said the Branch was ready enough to order appointments to be given up, but would do nothing towards lending a helping hand to those who suffered pecuniary loss for the benefit of the Association.

Dr. J. M. GILL agreed with Dr. Jamieson, and moved an amendment, "That the consideration to the scheme be postponed."

Dr. BINNEY seconded the amendment. He held that it would be better to deal with cases as they arose. If a man sacrificed a remunerative appointment at the instigation of the Council the profession should combine to compensate the member. He would be glad to contribute his quota for such an object.

Dr. RUSSELL NOLAN, while admitting that medical men had many calls on their purses in supporting the various medical societies, yet even if all such were subscribed, the amount a year would only be a mere £5 per annum, and the claims of this proposed new organisation could well be endured. He strongly advocated the starting of the fund. It would be a waste of time to attempt to deal with each case as it arose, as Dr. Binney had suggested. Besides, if the fund were started, that fact alone would have a good moral effect itself in quarters outside the profession.

The amendment on being put to the meeting was lost, and the original motion was then carried unanimously.

Dr. Crago consented to act as temporary honorary treasurer for the fund.

It was decided to leave the motion in the hands of Dr. Furnival to arrange for a meeting of the committee to draw up a constitution and rules.

The PRESIDENT explained the arrangements that had been made for the annual meeting of the N.S.W. Branch to be held the last Friday in March. The meeting will commence at 121 Bathurst-street on Thursday, March 26th, for the appointment of scrutineers of the ballot papers. The meeting would then be adjourned till the following evening, Friday, March 27th, at the Royal Society's Rooms. It had been found necessary to make this arrangement owing to the large increase in the number of ballot papers received.

South Australia.

THE first monthly meeting of the year was held at the University on Thursday evening, February 26th. Present: Dr. A. A. Hamilton (president), 36 members, and several visitors.

Patients were shown by Drs. Ansley Giles, Wigg, Swift, J. C. Verco, Gunson and W. A. Verco; also various pathological specimens.

Dr. W. A. VERCO showed a stomach and duodenum from a child 3½ days old that died with symptoms of obstruction. There is a congenital occlusion of the

Digitized by Google

duodenum in its second part just above the orifice of the bile duct—the usual situation of stricture in these cases. The child passed eight motions, all of bile and meconium, but was sick from the first time it had the breast. The duodenum above the occlusion was enormously distended, and reached to the pelvis.

The PRESIDENT reported having sent letters of sympathy to and received acknowledgment from the widows of Drs. Popham and Brookes.

Minutes of last meeting were signed.

Communications were received from the Brisbane and Auckland Branches *re* Friendly Societies' dispensaries, etc.

Dr. C. H. SOUTER read a paper on "Puerperal Sepsis in Country Practice." (See page 105.)

Dr. A. A. HAMILTON said: We are all under a deep obligation to Dr. Souter for the amount of time and trouble he has expended in working up the material for a most interesting paper, to which we have listened with so much pleasure, as well as for travelling such a distance to be with us this evening. The unusually large attendance here is an eloquent testimony to the interest felt in the subject by the members of this Association and to their cordial appreciation of Dr. Souter's efforts. The subject matter is of especial interest to myself, as in August, 1889, I read a paper before this Branch on pretty much the same lines, to which Dr. Souter has kindly referred. I believe I have the honour to have been the first member who, by a paper containing comparative statistics, emphasised the advisability of endeavouring to secure, in midwifery practice, that asepsis which has made possible such notable triumphs in general surgery. My own proportion of forceps cases is 33·03 per cent., and I find that, in the last 571 cases, it has reached 44·48 per cent. In nearly 1000 consecutive confinements, in private practice, in which the temperature has been recorded, it has risen over 100° F. during the first week of the puerperium in 4·80 per cent. In 400 forceps cases out of the above, the percentage over 100° F. was 5 per cent. This is practically the same, and, therefore, I can claim that, in my present practice at least, the use of the forceps does not entail on my patients any extra risk of a rise of temperature. Deducting from the elevated temperatures those cases in which the rise was obviously due to some local cause, apart from septic absorption, *e.g.*, mastitis and sore nipples (8), constipation (3), such cases as measles (1), influenza (1), inflamed piles (1), etc., etc., and five other cases, in which the rise was very transient, lasting under 24 hours, unaccompanied by any symptoms, and subsiding without any treatment, there are left just half the number, 2·40 per cent., which may be attributed to septic absorption in some form. In my paper of 1889 I found that where the perinæum was torn a rise of temperature ensued in 30 per cent. Larger numbers and more extended experience gives a percentage of 8·03 in these cases. This large percentage shows the necessity of guarding the perinæum against injury as far as possible. I believe the forceps, judiciously used, often avert a rupture. When the head is down on the perinæum, I prefer to keep the legs extended, and the handles of the forceps as nearly parallel with them as possible. In this way the head engages the outlet with the short occipito-frontal diameter, and extension is not allowed to take place till the occiput is delivered. If the directions given in most text-books are followed, and the handles brought up in front of the pubes, towards the abdomen, the occiput will, as a rule, remain jammed under the pubic arch, while the perinæum is distended and its integrity endangered by the long occipito-mental diameter. The antiseptic which I habitually use for my hands and the vulva is biniodide of mercury, and the lubricant is ordinary soap. I never allow douching, unless some special indication should arise, but have the external genitals bathed with Condy's fluid.

Dr. BRUMMITT disagreed with Dr. Souter's suggestion that there were as many deaths from sepsis in medically attended cases as in the non-medically attended. He had known several of the latter.

Dr. MARTIN said he did not think the doctor could be to blame in every case. He had read of a case in which the husband (a bricklayer) made an examination every morning before going to work. He did not think the doctor could be blamed if sepsis occurred in that case. He knew of one case of drain poisoning causing a rise in temperature. When he closed the drain the temperature went down.

Dr. HARROLD said he rarely used instruments and rarely had temperatures, but he observed certain antiseptic precautions. He had one patient who had septic complications twice, due to mental anxiety. As an antiseptic he preferred lysol.

After some further remarks by the President, Dr. SOUTER replied.

Messrs. Denyer Brothers' representative displayed samples of instruments; and a mechanical massage apparatus, worked by compressed gas, was explained in action by its local agent.

Queensland.

A MEETING of the Branch was held on Friday, March 6th, with an attendance of 14 members, Dr. W. S. Byrne (vice-president) in the chair.

Dr. ROBERTSON exhibited a girl of 16 suffering from cough. The condition had existed for six months, and there was no evident cause for it. Relief was obtained only by the inhalation of vapour from hot water, immediately upon the removal of which the cough returned. It did not occur during sleep. All the usual methods of treatment had been adopted without result. There appeared to be no other diagnosis than hysteria possible, and in order that the Weir Mitchell treatment might be adopted, hospital had been advised but refused.

Dr. McLean was nominated for membership.

It was resolved that a letter be written to Dr. Davidson, of Rockhampton, congratulating him upon his resignation of office under the A.N.A.

Dr. BYRNE read a paper upon "Post Operative Suppression of Urine," and a general discussion ensued.

The Secretary read a paper on "Tuberculosis, and its Modern Treatment," by Dr. Stewart, of Dalby. (See page 96.)

UNIVERSITY INTELLIGENCE.

University of Sydney.—At the last monthly meeting of the Senate of the University, the triennial election to the office of Chancellor resulted in the unanimous re-election of the Hon. Sir Normand MacLaurin, on the motion of Senator O'Connor, seconded by Mr. H. C. Russell. The following degrees were conferred *in absentia*:—Bachelor of Medicine: P. S. Clarke, H. E. Fox. Master of Surgery: P. S. Clarke. The following degrees were conferred in person:—Bachelor of Medicine: P. N. Aitken, J. H. Cahill, L. B. H. Conroy, H. P. Marsh. In the Faculty of Medicine: Dr. E. J. Jenkins was appointed examiner in clinical medicine in lieu of Dr. Sydney Jones, resigned.

University of New Zealand.—The following have passed the final medical and surgical examination, recently held by the University of New Zealand:—Miss E. S. Baker, W. F. Browne, F. R. Hotop, C. O. Lillie, E. M. Livesey, J. D. Marks, W. F. Paterson, R. J. Ritchie, L. S. Talbot.

Digitized by Google

REVIEW OF CURRENT MEDICAL LITERATURE.

SURGERY.

The Surgical Treatment of Gastric and Duodenal Ulcers.

Moynihan (*Lancet*, January 31, 1903) contributes a paper on a series of cases of the above which have come under his own care. Operative treatment may be required in perforation of a gastric or duodenal ulcer, in hæmorrhage manifest either as hæmatemesis or melæna, and in chronic ulcers of the stomach or duodenum, producing stenosis in the body of the stomach or near the pylorus, dilatation of the organ, or persisting and intractable dyspepsia. The author contents himself with a mere statement of his experience in the treatment of perforation, as that has been more carefully studied and set forth by recent writers, but he enters more fully into the subjects of hæmorrhage and chronic ulceration.

Perforation may be acute, subacute, or chronic, depending upon the contents of the stomach, the presence or absence of adhesions, and the position of the ulcer. In acute and subacute cases an operation should be advised as soon as the diagnosis is assured. The clinical picture presented by an acute perforating ulcer will depend in some measure on the site of the ulcer. If in the fundus at the cardiac end, or in the body of the stomach, an acute infection of the whole peritoneal cavity rapidly follows; if the ulcer be at the pylorus or in the first portion of the duodenum, the fluid is directed down to the right side of the abdomen, owing to the hillock formed by the transverse meso-colon at the pyloric end of the stomach. The symptoms frequently mimic those caused by an acute appendicitis. In operating, Moynihan does not excise the ulcer. A continuous suture of catgut, taken wide of the ulcer, folds the stomach walls over and buries the rent. A second continuous suture of Pagenstecher thread is placed outside the first. The abdomen is generally flushed with hot saline solution. Drainage is very rarely necessary.

Operations for Hæmatemesis and Melæna.—There has been much discussion during the last two or three years as to the propriety of surgical intervention in cases of serious bleeding from gastric and duodenal ulcers.

Hæmorrhage from an Acute Ulcer.—When a severe attack of hæmatemesis occurs from an acute ulcer it is but seldom that a history of antecedent symptoms of gastric discomfort can be obtained. Hæmorrhage is, in a large proportion of cases, the first symptom. The amount of blood lost is always large, and it is lost within the space of a few minutes. The general symptoms are those attendant upon any serious loss of blood: collapse, blanching, sweating, rapid shallow breathing, thin and quick pulse. The body surface becomes cold, pallid, and clammy; the patient is restless and complains always and constantly of a thirst which cannot be quenched. The bleeding is seldom repeated, or, if repeated, is not severe.

Hæmorrhage from a Chronic Ulcer.—In all cases in this group there have been symptoms of chronic indigestion. The bleeding varies within the widest limits of frequency and quantity. The cases may be divided into two groups. In one the hæmorrhage is trivial in amount, and is irregularly repeated. In the other the hæmorrhage is the predominant feature. It is copious—half a pint to a pint—and after a quiescent period of 24 hours or more a second, equally severe, hæmorrhage occurs. The recovery from hæmatemesis from an acute ulcer is generally very rapid, while a persistent anæmia often follows hæmatemesis from a chronic ulcer. Differences of opinion have been expressed by physicians and surgeons as to the operative treatment of these forms of hæmorrhage. In hæmorrhage from an acute ulcer medical treatment alone will suffice; surgical measures will very rarely be necessary. In the chronic ulcer, however, with indurated edges, the case is far otherwise. The ulcer should either be excised or its base transfixed and the ligature tied, and a gastro-enterostomy performed. In some cases a gastro-enterostomy has been sufficient to arrest the hæmorrhage and secure the healing of the ulcer—probably by keeping the stomach empty.

Chronic Ulcer, producing Stenosis, Dilatation, or Inveterate Dyspepsia.—The chronic ulcer, if situate at or near the pylorus (on either side) causes obstruction and consecutive dilatation of the stomach, and if in the body of the stomach inveterate dyspepsia or hour-glass stomach, and possibly also pyloric obstruction due to spasm. One circumstance that has repeatedly impressed itself upon the author is the multiplicity of gastric and duodenal ulcers. A chronic ulcer is seldom solitary. Two ulcers are occasionally seen in exactly opposing points of the anterior and posterior walls. It may be a difficult question to decide as to which one of two or more ulcers should be excised. Excision of the ulcer is really not necessary. A gastro-enterostomy will without question suffice to effect the healing of the ulcer and will give complete relief. Whatever the position of the ulcers may be, the author now performs gastro-enterostomy. The operation of gastro-enterostomy is fully described; the operation performed being that of Von Hacker—a posterior gastro-enterostomy with simple suture. Especial care is paid to the sterilisation of the mouth, stomach and jejunum. Gloves are worn by the operator, assistants and nurse. Scrupulous care is taken to avoid any infection from the mucosa.

Subdural Interposition of Rubber Tissue without Removal of the Gasserian Ganglion in Operations for Tic Doloreux.

Abbe (*Annals of Surgery*, Australasian edition, February, 1903), after discussing the various operations performed for the relief of tic, points out the great mortality that follows the complete removal of the Gasserian ganglion and the difficulty of the operation. He first performed this operation six years ago on a man of 46, after two or three futile attempts to remove the ganglion, and the patient has remained perfectly free from his distressing complaint. Since then he has practised the method on five other patients with success. The author believes that the disease is nearly always located anterior to the Gasserian ganglion. He quotes from the recent work of Ballance and Stewart as to the process of repair in divided nerves. 'He thus describes the operation:—I would advocate hereafter, in grave cases of tic doloreux, that the surgeon should not temporise by any of the external methods of operating, but at once resort to this, which now seems to me the proved and radical cure in its safest form. The external carotid artery may be ligated with advantage in controlling hæmorrhage. A vertical incision over the middle of the zygoma, carried through the temporal muscle to the bone, divides no important nerve or vessels. The muscle is scraped either side, and held by retractors. A small opening is then quickly made by mallet and gouge, and this is enlarged rapidly and safely to an inch and a half in diameter. No better exposure can be had by any incision than by this simple straight one. The dura is then pressed from the middle fossa until the nerves are exposed. The much complained of hæmorrhage from venous sinuses on dissecting up the periosteum can be best controlled, and very quickly, by pressing a strip of rubber tissue upon the place with a firm pad of gauze

Digitized by Google

in strips. The clotting of blood under the rubber tissue takes place very quickly, while if plain gauze is put in contact with the bleeding point, the blood being sucked up into it, prevents clotting. The nerve-trunk I grasp in separate artery clamps, divide each close to the foramen of exit, and, either by cutting or by rotation of the forceps, separate them from the Gasserian ganglion. The wound is packed for a few moments with narrow strips of iodoform gauze until dry; a piece of thin guttapercha tissue, stiff enough to be easily handled, is sterilised by rubbing with perchloride solution and kept in salt solution for a few moments before operating. This is cut 1½ in. long and ¾ in. wide. This is laid carefully over both the foramen rotundum and ovale, where the nerves have been separated, and pressed carefully into place by iodoform gauze. In a very few moments the gauze may be drawn away and the Gasserian ganglion allowed to settle down upon the rubber tissue. A small drainage tube should be placed in the angle of the wound for a few hours to ensure a perfectly dry healing.

The conclusions arrived at by the author are—(1) that the operations upon the ganglion have been carried to an unnecessary degree of severity; (2) that resection of one-fourth or one-half inch of the nerves anterior to the ganglion and within the cranium, with the interposition of rubber tissue, can be relied upon for perfect cure up to six years at least, with probability of permanency as great as by any method; (3) that it is a simple, speedy and safe method, and thereby fulfils the highest aims of the best surgery.

Results of Operations on the Kidney for Tuberculosis.

Garceau (*Annals of Surgery*, Australasian edition, November, 1902) analyses the statistics of 194 cases collected by himself, as well as Bangs's and Facklam's tables—making a total of 415 cases in all. The small percentage of cures is striking in all. In the author's table there are but 41 out of 194 in which at the end of two years the patient was still well; in Bangs's list there were but 10 in 135; and in Facklam's there were but 7 in 88. Reduced to percentages, these cures are 21 per cent., 7·4 per cent. and 7·9 per cent. respectively. The reason the results are not better is because renal tuberculosis is rarely primary in the kidney. In 24 cases of caseous tuberculosis of the kidney occurring in 3424 autopsies at the Boston City Hospital and in the Massachusetts General Hospital during the past ten years the kidney was never the only tuberculous organ in the body. Morris (Surgical Diseases of the Kidney and Ureter, Vol. I., p. 484) says that occasionally the kidney is found at autopsy to be the only organ actively diseased, but that old foci of cured tuberculosis are always found in the prostate, testicle or lungs. Of the 415 cases analysed by the author there were 122 deaths, immediate and remote, and of these deaths tuberculosis in some other organ was the cause in 49 instances; the remaining deaths were due to some other cause or were included in the operative mortality. Tuberculosis of the opposite kidney was reported in 24 cases (5·7 per cent.). The lungs were most frequently affected and undoubtedly were the starting point of the disease in many instances. A patient who has been operated upon for renal tuberculosis should never consider that the future is safe, but should take the utmost care of himself in order to maintain his constitution up to the highest possible pitch of vigour.

The comparison between nephrectomy and nephrotomy is a striking one. In this comparison, the author's list of 194 cases is alone referred to as being the most recent. The mortality was 17·4 per cent. in nephrectomy and 46·6 per cent. in nephrotomy. Many of the patients had been allowed to drag along in a septic condition for months before the operation, which had then become an operation of urgency. It may safely be asserted that nephrotomy alone will offer but a slight chance of a permanent cure. Nephrotomy followed by nephrectomy offers the greatest encouragement. In 47 cases thus treated there were but 5 deaths, a mortality of 11·9 per cent. Where the ureter is diseased, it should be removed, or further complications may be expected. The additional risk of ureterectomy is only slight. Garceau draws the following conclusions from his analysis of the 415 cases:—

1. Tuberculosis is rarely, if ever, primary in the kidney, and the original focus is in some other organ in more direct contact with the external air in the majority of cases.
2. The presence of a primary focus of disease in the body, even if the disease has been thoroughly eradicated from the urinary tract, makes the ultimate prognosis in these cases doubtful at least.
3. Such foci may remain permanently quiescent, but they may also become excited to activity by a generally low condition of the system, or by causes unknown to us.
4. Patients should be told of the danger as regards the future for them, and they should lead lives of the greatest regularity, with strict attention to hygiene. A change of climate is very beneficial in these cases.
5. Reported cures of long duration occur, but they have been few.
6. Nephro-ureterectomy should be done in all cases in which the ureter is diseased, and the patient's condition allows of it. The bladder should be subsequently treated if diseased.
7. An abandoned tuberculous ureter is an especial source of danger on account of the great liability of subsequent tuberculosis.
8. Nephrotomy alone should be rejected except as a preliminary to a later nephrectomy.
9. Resection is not justifiable, for we can never be sure that the portion removed is the only portion diseased.

A Case of Transplantation of the Biceps Femoris Tendon.

Painter (*Boston Medical and Surgical Journal*, October 2nd, 1902) reports the above. The patient, a female aged 28, had been a cripple from childhood, the result of infantile paralysis. She had been obliged to use two crutches, or a crutch and a cane all her life. She was a fairly developed woman, except for the lower extremities. In the left thigh there was a flaccid paralysis affecting all the muscles except the biceps. There was marked atrophy of both thigh and calf, but the muscles of the lower leg were not completely paralysed. In walking, the foot was turned inwards, and the leg was extended in that position through the action of the biceps femoris. In the right leg there was complete flaccid paralysis of all the calf muscles. There was marked atrophy of the muscles of thigh and leg, and in walking there was a position of extreme calcaneus. The right astragalus was removed, and the cartilage covering the top of the scaphoid and the anterior extremity of the os calcis was denuded, and also that covering the external malleolus. The tibia was moved as far forward as possible; the wound was closed with silkworm gut and the leg put up in plaster of Paris. An incision was made over the outer side of the left knee, parallel with the tendon of the biceps femoris, 12 cm. in length. The biceps tendon was cut off at its attachment, and the muscle dissected free to such a height as would make it pull as an extensor

Digitized by Google

when inserted into the quadriceps tendon at the upper border of the patella. A slit was made through the expansion of the quadriceps tendon close to the patella, and the biceps tendon was passed through this and fastened by two mattress silk sutures. The lower end of the fascia lata, which through the muscular pull of the tensor vaginæ femoris was acting in a similar manner to that in which the biceps femoris was exerting its pull, was divided from its attachment and reflected over the superior portion, making its combined insertion close to that of the transplanted biceps. The incision was closed with silkworm gut, and the leg put up in plaster of Paris. Use was allowed of the left leg in six weeks, but the ankle was kept fixed for three months. The result of the tendon transplantation was eminently satisfactory; the patient walks with the foot in a normal position, and the biceps is able to extend the leg within 10 deg. of the complete extension, and to hold it there with the toes pointing upwards.

THERAPEUTICS.

Agurin.

Agurin is a double combination of theobromine-sodium and sodium acetate; it is a white inodorous powder of somewhat bitter taste and alkaline reaction, which, with a high percentage of theobromine, offers the advantages of that preparation in a high degree, but is said to be free from its drawbacks. Reye (*Die Heilkunde*, No. 6, June, 1902) records his experience with this drug on 15 patients. He states that it was not possible to pass a final judgment on the value of agurin from this small number of patients, especially as amongst the cases selected were many in which the peculiarity of the disease left the success of the remedy doubtful from the first, or in which trials of other drugs possessing a somewhat similar action had already shown that they were not easily amenable to treatment. At any rate the remedy has rendered good service in several cases of heart complaints with dropsy, and has produced good results in cases of chronic interstitial nephritis, in one case specially in which agurin, after the failure of several other remedies, had such remarkable results that one is warranted in using it in apparently hopeless cases. In doses of 37½ grains a day the drug was well tolerated from one to ten days in succession. In only one case in which as much as 75 grains per day was given on two consecutive days did the patient complain of dulness in the head, restlessness, stomachic trouble and nausea. The author considers agurin superior to diuretine in the class of case above indicated.

Intravenous Administration of Antitoxin in Diphtheria.

Cairns (*Lancet*, December 20th, 1902) says that the marked reduction in the case-mortality in diphtheria effected since the introduction of the diphtheria antitoxin is now admitted by everyone, but the experience gained in the treatment of this disease at the City of Glasgow Fever Hospital suggests that even a further fall in the case-mortality may be hoped for. The lines along which this improvement may be effected are (1) by the exhibition of larger doses than those commonly recommended, and (2) in certain cases the intravenous use of the remedy. When given subcutaneously, even in large doses, the effect of the serum appears to be chiefly a local one, degeneration occurring only in those organisms which lie within the area of injection. By the intravenous method the maximum influence of the serum on the tissues, and also on the organisms, is obtained with greater rapidity than when the serum is used subcutaneously, and those bacilli which have overflowed from the primary focus of infection into the general circulation can be reached directly, and similar degenerative changes be produced, whilst at the same time the circulating toxin is most effectually dealt with. He narrates the histories of four cases illustrating the remarkably beneficial results of this method of treatment where broncho-pneumonia was present when the patients came under observation. Another case is recorded showing the rapid disappearance of broncho-pneumonia, which had supervened after subcutaneous injection of the antitoxin, when the intravenous injection was resorted to. Two other cases are given illustrating the benefit derived in the malignant form of the disease by this method of treatment. A study of these case-histories shows that the intravenous injection of antitoxin is capable of producing therapeutic results not obtainable by the subcutaneous method. Some of the most obvious results of the treatment are: The strikingly rapid disappearance of the signs of toxæmia, the rapid disappearance, sometimes in the course of three or four days, of the great glandular enlargement in malignant cases, and the marked diminution of the restlessness which is so distressing a feature in pneumonic cases. These clinical histories formed part of a series of 50 consecutive cases, in 20 of which the intravenous method was adopted; 31 of these were laryngeal cases, 15 of these were complicated by broncho-pneumonia of greater or less severity, and in 17 tracheotomy was performed. The case-mortality was only 6 per cent. While the percentage of tracheotomies was greater than that of the previous year—34 per cent. as compared with 25 per cent.—the mortality after the operation showed a striking reduction—viz., 5·8 per cent. in place of 34·7 per cent. Of the cases of tracheotomy no less than 12 were complicated with broncho-pneumonia, and this makes the case-recovery all the more remarkable. The dose employed intravenously was from 20,000 to 35,000 units. The largest amount injected intravenously was 82,000 units in three separate doses. No untoward results were observed after these large doses of serum; at no time could the presence of albumin in the urine be ascribed to the use of the serum, for many of the patients who received the largest doses of the serum had little or no albuminuria. The general indications for the adoption of the intravenous method of injection were the following:—Malignant forms of the disease, *i.e.*, those characterised by hæmorrhage from the nose or into the skin, by great glandular enlargement with marked cellular infiltration, and by extreme blanching of the skin; any marked involvement of the lungs, either at the time of admission or subsequently; a moribund condition of the patient, and profoundly toxæmic condition of the patient. In all such cases an initial dose of from 20,000 to 25,000 units is, perhaps, not excessive, and if in 24 hours the patient fails to respond to the treatment, as indicated by persistence of the signs of toxæmia, by continued rise of temperature and increased frequency of pulse and respiration rate, and by an extension of the membrane, the dose may be safely repeated.

Creosote Carbonate in the Treatment of Pneumonia.

Wilcox (*American Journal of the Medical Sciences*, 1902) writes as follows on this subject:—"Within two years Cassoute and Congier reported that after continuous administration of fairly large doses of creosote carbonate (containing 91 per cent. of creosote and made from it by the action of nascent carbon dioxide) in most cases a typical fall of temperature occurred during the first 24 hours of treatment, and if the remedy was persisted in for a sufficiently long period of time the apyrexia became permanent. Relapses and sequelæ, so frequently seen under other methods, were entirely

Digitized by Google

absent. The daily dose of creosote carbonate was from 2 to 4 dm., the dose interval being six hours. So soon as the temperature reaches normal, the amount is reduced to one-half, and this is continued so long as auscultatory signs persist. My own experience covers 33 cases, with no deaths. The disease terminated by lysis in nine, by crisis in 24. To summarise: the treatment should consist in the continuous and generous administration of creosote carbonate, careful adjustment of mechanical conditions, thorough evacuation of toxins by all possible ways, temporary supplemental oxygen by inhalation, and liquid diet until physical signs disappear. To be avoided are: antipyretics, opiates, ill-advised external applications and slowly acting heart remedies, as digitalis."

DISEASES OF EAR, THROAT AND NOSE.

Constitutional Manifestations of Adenoids.

Kyle (*Laryng.*, September, 1902) calls attention to the fact that adenoids, even though not large enough to produce obstructive symptoms, may, nevertheless, by absorption of septic material, cause marked constitutional disturbances, and says that frequently we have to deal with febrile conditions in children in which there is no apparent cause for the symptoms present, and that the cause of such temperature can be directly traced to the inflammatory condition of the adenoid structure. The author has noticed that in any case in which there is the slightest infection, with inflammation of the pharyngeal tonsil, the systemic phenomena are out of all proportion to the local cause; that this gland seems to rapidly absorb any septic material; and that the temperature rises suddenly before there is any marked constitutional effect. Children with adenoids are more susceptible to cold and the diseases of childhood than those who do not have them, and symptoms produced by cold are aggravated in proportion to the amount of gland structure present. In all the infectious processes of childhood it is a well-known clinical fact that the prognosis is more grave and that the symptoms are of a more severe type in cases in which this gland structure is abundant than in those in which it is absent or slight. This has proved true in cases of scarlet fever and diphtheria.

The Treatment of Acute Suppuration of the Middle Ear.

Phillips (*Med. News*, Jan., 1903) draws the following conclusions:—

1. In acute middle ear inflammation, early and free drainage is of the utmost importance.
2. Patients should remain in bed till acute symptoms have passed.
3. Free purgation, principally by means of calomel, should be resorted to.
4. Local treatment should consist of cleanliness and free drainage.
5. Prolonged attempts to abort suppuration of the mastoid cells are to be condemned.
6. Early operative influence in mastoid suppuration prevents the more serious complications and gives far better hearing results.
7. Uncomplicated cases, when properly treated, always recover in from two days to three weeks.

Treatment of Early Cancer of the Larynx by Thyrotomy.

Yonge (*Lancet*, November 15) states that in the majority of cases epithelioma is at first intrinsic, *i.e.*, it takes origin from a vocal cord or ventricular band, and is confined for a considerable period within the laryngeal cavity. The growth betrays a great reluctance to invade and penetrate the cartilage of the structure, and spreads by preference either upwards or downwards. Moreover, involvement of the lymphatic glands is absent or very late in making its appearance. The importance of recognising the disease at an early stage is very great. It is at this time that the comparatively simple procedure of thyrotomy, with excision of the diseased structure (including, if necessary, cartilage), is likely to be followed, as pointed out by Lemon, Butlin, Chiari, Schmiegelon, Tilley and others, by brilliant results. Lemon has obtained about 90 per cent. of cures in his cases. Furthermore, the risks and disadvantages associated with total or partial laryngectomy are, to a large extent, avoided. Yonge points out that the most characteristic symptom of early malignant disease is a persistent dry hoarseness, especially occurring in a person over 50 years of age. In these cases the usual remedies are resisted and the intensity of the hoarseness is often found to be out of proportion to the physical signs which are to be observed by means of laryngoscopic examinations. The removal of a piece of the suspected growth is often advisable.

The appearances seen in the larynx are somewhat various. A distinct infiltrating growth may be present, or a wart-like tumour, or the cord may be converted into a papillary fringe. A suggestive and early sign is the sluggishness in the movement of one or other cord not amounting to paralysis. The extension of a growth backwards so as to implicate the arytenoid region is also a suspicious sign.

Corditis Cantorum.

Miller (*Laryng.*, Nov., 1902) concludes that any failure of harmonious action of the various muscles acting hence in the nature of trauma may produce nodes on the part of the vocal bands which these muscles control. Prior to this he shows that changes in the size and form of the three hollow spaces—nasal, oral and laryngeal—are quite as important in producing the modifications and modulations of the singing voice as are the vocal cords and the intrinsic muscles of the larynx. Disturbances in these spaces may reflect themselves upon the vocal bands through the laryngeal muscles, thus likewise producing nodes. Since the pathological study of the vocal nodes shows them to be purely inflammatory swellings excited on normal tissues, he states that they should never be removed instrumentally, because, following the laws of inflammation, they can be absorbed without any change in the tissue involved.

The treatment consists of proper and vigorous massage of the strained muscles, and special vocal exercises for the restoration of those relaxed. The author has treated successfully 52 cases of cordal disorder, the majority of whom showed nodes according to the ideas suggested in his paper.

Diagnosis of Cerebellar Abscess following Septic Ear Disease.

Eve (*Lancet*, January 17th, 1903) states that in the early stage vertigo and staggering may be noticed, and the patient may fall to the side opposite the lesion. There is also rotatory movement towards the opposite side, the patient constantly turning in bed, so that the side of the lesion is uppermost. Severe pain, often paroxysmal, is experienced over the corresponding occipital region. Vomiting is intense, and optic neuritis is usually present and well marked. There is often conjugate deviation of the eyes to the opposite side. In doubtful cases of abscess approaching the "latent"

Digitized by Google

variety, the discs should be constantly watched, and due weight must be given to emaciation and incontinence of urine. Optic neuritis is more constant and marked in cerebellar than in tempero-sphenoidal abscess. It has been stated that in cerebellar abscess the optic neuritis is more intense on the side of the abscess, or is only present on that side. The writer urges the great importance of opening the abscess freely, and of removing by flushing the sloughs of brain tissue, which are commonly present.

OBITUARY.

Margaret Isabel White, M.B., Ch.M. (Syd.) 1901, Adelaide, S.A.

We deeply regret to record the death of Miss Margaret White, M.B., Ch.M., Syd., which occurred at Sydney on February 22nd. She was born at Denman, Hunter River, in 1871, and was the third daughter of H. C. White, Esq., now of Havilah, near Mudgee, N.S.W., and received her medical education at the University of Sydney, where she graduated M.B., Ch.M. in December, 1901. Soon afterwards she was appointed Resident Medical Officer at the Children's Hospital, Adelaide, and there discharged her duties with great zeal and took an earnest interest in her work. In January last she resigned her appointment and contemplated settling in practice in Adelaide. Early in the year she travelled overland to Sydney, stopping en route for a day or two to visit some friends near Albury. On arrival in Sydney she began to study gynæcology, and five days later symptoms of typhoid fever began to develop; this proved fatal in five weeks. She was attended during her illness by Dr. Agnes Bennett and Dr. Rennie. Sir Normand MacLaurin was also called in consultation, but symptoms of heart failure became pronounced and she died as above. The funeral took place at Waverley

Dr. White gave promise of a most useful and promising career in her profession, and we deeply sympathise with her relatives, and especially Dr. Morgan, of Adelaide, to whom she was engaged to be married.

Angus McLeod, M.D., Portarlington, Victoria.

According to a paragraph in the Melbourne *Age* Dr. Angus McLeod died at Portarlington on February 13th. He was a colonist of 50 years' standing, and for more than 40 years was engaged in grazing pursuits at Swan Bay, never practising his profession He was a member of the Bellarine Shire Council for years, and had been its president.

The Medical Directory for 1903.—The new volume of Churchill's valuable Directory has just been issued. The book has been reduced in thickness by an increase in the size of the pages, and various typographical improvements have been effected. The abstract of the principal laws affecting the medical profession has been corrected to date. A statistical table is given to show that there are now 37,291 qualified practitioners, as against 36,788 last year, an increase of 503. Of this total, 6309 belong to the London list, 16,422 to the provincial list, and the remainder to Scotland, Ireland and the services.

Professional Incomes in Paris.—A computation has been made of the average income of medical men in Paris, from which it appears that out of a population of 2600 practitioners 40 have a gross annual income of from £8000 to £12,000; 50, of £4000; 50, of from £2000 to £4000; 200, of from £1200 to £2000; 200, from £800 to £1200; and 1700 an average of £145.

CORRESPONDENCE.

London.

(FROM OUR OWN CORRESPONDENT.)

Aortic Disease and Tabes Dorsalis—The Value of Alcohol—The Temple of Æsculapius—The Tendo-Achilles Jerk—Memorial Fund of the Royal Army Medical Corps—Post-Graduate Teaching in London—Retreats for Inebriates.

An interesting article was contributed by Dr. Arullani to an October issue of the *Revue Neurologique* on the result of a succession of observations made at the Neuro-Pathological Laboratory of the University of Turin upon the condition of the heart and aorta in tabetic cases. It was shown that in a large majority of cases aortic and cardiac lesions were found during life and verified after death. Sixty-eight cases were examined in detail, and in most of them aortic dilatation was indicated by an increase of dulness to the right of the upper part of the sternum. Aortic murmurs were usually present, and were accompanied by a varying degree of tachycardia and by accentuation of the second cardiac sound. Premature arterio-sclerosis with tortuous arteries was frequently met with in patients aged from 20 to 35 years. Seventy seven per cent. of the patients admitted a previous syphilitic infection, and in 15 per cent. other causes of tabes (such as alcoholism, overwork and malaria) could be traced. In two cases an early aortitis ultimately developed into aneurism. It is somewhat remarkable that few text-books say much about this relationship between cardio-vascular degeneration and locomotor-ataxia, though it must be within the daily experience of every hospital physician that it is the rule rather than the exception for the two conditions to coexist.

The November issue of the *Practitioner* is entirely devoted to the question of the use and abuse of alcohol as it is related to the causation and treatment of disease, to the moral and physical welfare of the individual and the community, and to the present vigour and future development of the human race. The effects of alcohol as a beverage are borne witness to by the personal experiences of Sir Samuel Wilks, Sir Henry Thompson, Professor Sims Woodhead, and Dr. James Edmunds. Its disastrous effects from a sociological point of view are set forth by Dr. Ridge, who calculates that alcohol is responsible for at least three-fourths of the world's pauperism. A careful analysis of available statistics on the mortality from alcoholic excess is given by Dr. Francis Vacher. Sir William Broadbent and Mr. Pearce Gould contribute papers on the value of alcohol in medicine and surgery respectively, and Dr. Milne Bramwell relates his experience of hypnotic suggestion as a means of recovery or cure in cases where the alcoholic habit has become established. The number, taken as a whole, is valuable as bringing together all shades of opinion on a vastly important social and medical question; but, after all, when everything has been said, it will probably ultimately have to be admitted that the desire for an alcoholic drink of some kind is a natural instinct which civilisation has not, and will not, extinguish. The key-note of the difficulty is *moderation*, and whenever education becomes so perfected that the experience of humanity serves as the guide of its conduct it will be found that, properly used, "wine maketh glad

Digitized by Google

the heart of man." Its abuse is to be unreservedly condemned, but its use can no more be stopped by an intemperate advocacy of teetotalism than by an Act of Parliament; while its worth from the medical point of view cannot be better summed up than in the words of Bacon: "A man's own observation what he finds good of, and what he finds of, is the best physic to preserve health."

Dr. Rudolf Herzog has recently been lucky enough to succeed, where previous archæological investigators have failed, in finding the situation of the Temple of Æsculapius in the Island of Cos. He has discovered the columns of the temple lying whole or in pieces in the place called Condje Baktchessi, or the garden of the flower buds. The temple is 17 metres wide and 37 metres long. In the same place, and about the same time, there was also unearthed a statue of Hygeia, as well as a part of the image of a serpent, the symbol of Æsculapius. It is extremely difficult to say when hospitals were first established or became general, but the inscription found on the entrance hall of this particular temple indicates that it was undoubtedly an institution supported not by one State only but by several. The inscription may be thus translated from the Greek, in which it is written: "Sundry elders from different States have decided by vote to carry on this holy Asylum of Æsculapius." It will be of interest to await the evidence of the extended excavations which are now in progress. Further discoveries may go far to definitely settle the question—which has been made a basis for much argument—whether there were, or were not, hospitals in existence before the birth of Christ.

Considerable attention has of late been given to the value of alterations in the activity of the Achilles reflex as an indication of disease. In health, if the tendo-Achilles be percussed with the leg flexed at a right angle on the thigh and the foot hanging loose, a jerk results—comparable to the patella jerk—which extends the foot on the leg. The presence of this jerk is of use in distinguishing functional cases from those which are due to structural changes in the sciatic nerve: it remains unaltered in the former, but in the latter is either diminished or lost. Its greatest value, however, is to be found in locomotor-ataxia, in which disease the sign is, according to Blavinsky and others, as important as the knee-jerk. The cases of tabes in which the Achilles jerk is unaltered are very rare, and generally speaking it disappears at an earlier date than the knee-jerk. The two tendon jerks are usually entirely absent, but this is not invariable. Both reflexes may be lost on one side and preserved on the other, or the one may be lost and the other maintained.

Before the termination of hostilities in South Africa a decision was arrived at that the Royal Army Medical Corps should erect a memorial to those of its number who fell in the campaign, and after consultation with the Director-General a provisional committee was formed in South Africa to consider the question and promote the object in view by an appeal for subscriptions. On October 8th last a meeting of subscribers to the fund was held in London under the presidency of Sir William Taylor, K.C.B. An executive committee was appointed, with Major Simpson as honorary secretary, and it was left in their hands to carry out all details of the scheme, a general recommendation being made to them by the subscribers present that it should be an outdoor memorial. The executive committee met on November 21st and decided that the memorial shall take the form of an obelisk to be erected at Aldershot. The total amount received up to the present is £650, and further subscriptions will be gladly received from all ranks of the Royal Army Medical Corps, including militia and volunteers. The limit of the subscription has been fixed at one day's pay, and subscribers need not necessarily have served in South Africa. Contributions should be made payable to Messrs. Hill & Co., 3 Whitehall-place, S.W., London, and should be marked for the "Special Fund for R.A.M.C. Memorial."

A certain number of the Medical Schools, in association with some of the special hospitals, have entered into an arrangement for providing clinical instruction to qualified practitioners. The former comprise Charing Cross, Guy's, King's College, Middlesex, St. Bartholomew's, St. George's, St. Mary's, St. Thomas's, University College, and Westminster; and the latter, the Brompton Hospital for Diseases of the Chest, the Great Ormond-street Hospital for Sick Children, the London School of Tropical Medicine, the National Hospital for the Paralysed and Epileptic, and the Royal London Ophthalmic Hospital. Joint cards of admission will be issued available for qualified men, whether British, colonial or foreign, on payment of a fee of seven guineas for three months' attendance, ten guineas for six months, and an additional five guineas for each subsequent period of six months. The cards may be obtained on personal application and upon evidence of qualification being furnished at the office of the Metropolitan Schools of Medicine, West Wing, Examination Hall, Victoria Embankment, W.C., London. The cards are strictly non-transferable, must bear the signature of the holder, and will admit to the practice of the various hospitals included in the association, but not to classes which are preparatory to any examination. This new scheme is an elaboration of an older one which has been in operation for some years, and is an attempt to bring the clinical facilities of many of the larger hospitals within the reach of those who are desirous of post-graduate study. It is undoubtedly a step in the right direction, and will be welcomed by many who have heretofore had reason to deplore the lack of opportunity in London for tuition and bedside instruction suitable to those busily engaged with the active work of the profession. In its present form, however, the scheme is crude, and lacks that organisation of detail and that special provision for the requirements of the qualified practitioner as distinguished from the undergraduate which are essential if it is to succeed as it deserves. When those responsible for this inaugural movement arrive at a fuller knowledge of the medical graduate's requirements it is to be hoped that they will succeed in providing arrangements whereby London will be rescued from the reproach of being behind many of the Continental cities in this important department of medical education.

An interesting report has recently been furnished to the Home Office by Dr. Welsh Branthwaite, inspector under the Inebriates Act. As the result of 56 visits of inspection made throughout the course of the year 1901, he found the licensed institutions, on the whole, well conducted and in excellent sanitary condition. He calls attention to recent inquiries made by him as to the value of certain secret remedies and drug specifics which are puffed as cures for inebriety. None of them bore the test of strict investigation, nor were the statistics quoted in their favour confirmed by trustworthy evidence. In Dr. Branthwaite's opinion there is no royal road to "cure" for the confirmed drunkard; he must be broken of his habit, brought back to his robust physical health, and taught by moral influence to live his life without the artificial and prejudicial assistance of alcohol. He further adds: "It has been freely stated of late that when a woman becomes an inebriate she may be regarded as hopeless; in fact, that her reformation is practically impossible. Although these expressions of

Digitized by Google

opinion have emanated from persons who are not in intimate touch with the work, they nevertheless create or add strength to an impression which is not only unjust and cruel, but entirely erroneous. Such expressions cause infinite annoyance to those licensees of retreats and managers of reformatories who are devoting their lives to the reformation of women; they make their work harder, and do incalculable harm by instilling into the minds of inebriate women the hopelessness of struggling against their failing. It is this impression, firmly rooted, and fostered by constant reference, which is largely to blame for many failures in the reformation of women." Throughout the report strong exception is taken to the use of the word "cure" as applied to alcoholism. The impression of security which it conveys is, Dr. Branthwaite thinks, unwarrantable. The tendency to excessive indulgence so soon as the charm of total abstinence is broken by even a single glass of wine with dinner may after many years become less or disappear, but such a result is the exception rather than the rule. The true inebriate is seldom able to take liquor in even the strictest moderation. He tends to continue now and then excessive in his libations so long as he trusts himself to touch alcohol in any shape or form. As regards the results which accrue from control and treatment in special institutions, the report says: "Taking all cases together, unselected, as they apply for admission to retreats, I am of opinion that from 25 to 30 per cent. of good results may be considered as approximately correct"; and the conclusion is arrived at "that if a retreat can show 25 per cent. it is doing a good work, and one which, if other methods were properly investigated, would prove to be incomparably superior to any other system of dealing with inebriates."

DERMOID CYST OF THE UPPER JAW.

(To the Editor of the Australasian Medical Gazette.)

SIR,—In the issue of this journal of December 20th, 1902, Dr. Sawkins describes as a dermoid a cholesterine containing cyst of the maxilla. His account of the case is so clear that it leaves no doubt in my mind that he removed a dental cyst connected with a stump, or the root of a carious tooth.—Yours truly,

J. BLAND SUTTON.

London, January 27th, 1903.

TONIC CONTRACTION OF THE UTERUS.

(To the Editor of the Australasian Medical Gazette.)

SIR,—I regret that my comments on a case of tonic uterine contraction reported by a correspondent in the *Gazette* of November 20th were not appreciated. I understood from the first contribution that the amyl nitrite was administered on account of "the condition of the patient with reference to the anæsthesia," but let that remain a matter of opinion.

With reference to the other point, I contend that the accepted rules of midwifery were disregarded—(1) in amputatiug the arms, by which your correspondent removed the tractors that nature had given him; (2) in attempting to turn a dead child in a uterus drained of its liquor amnii and in a state of tonic contraction, a procedure which is termed unjustifiable by Playfair and is strongly condemned by such writers as Herman, Galabin, Spiegelberg, Jellett and others in their text-books on midwifery.

As to being 16 miles from home, surely the instrument used to amputate the arms could have been used to perform decapitation or embryotomy; or the household scissors, duly rendered aseptic, might have been requisitioned.—I am, sir, etc.,

G.R.

Sydney, March 4th, 1903.

THE DENTAL HOSPITAL OF SYDNEY.

(To the Editor of the Australasian Medical Gazette.)

SIR,—The work of the Dental Hospital of Sydney is increasing rapidly. A considerable number of patients are sent from the various public hospitals and benevolent institutions, and the council are glad to receive all such cases, as it is recognised that these are the persons for whom the benefits of the Dental Hospital are really intended, viz., the necessitous poor.

In ordinary applications for relief our patients are required to obtain a recommendation signed by a medical man, a practising dentist, or a governor of the hospital, and the majority of these applications are signed by doctors. The council are very anxious that the operations of the hospital shall be strictly limited and confined to persons who are quite unable to pay for dental treatment; and in view of the fact that there is unfortunately an enormous number of people in need of dental aid who certainly come within this category, and that the funds of the hospital are already strained to their utmost limit in the endeavour to cope with this necessary work, they have requested me through the medium of your columns to ask the co-operation of the medical profession in this matter by withholding their recommendation from any applicant for admission to the Dental Hospital whose claim for gratuitous dental treatment they do not consider a valid one.—I am, yours, etc.,

G. LOUIS GILLAM, Secretary.

Sydney, March 7th, 1903.

THE USE OF ANTITOXIN IN DIPHTHERIA.

(To the Editor of the Australasian Medical Gazette.)

SIR,—I wish to call attention to the fact that the house surgeon at the diphtheria branch of the Children's Hospital, Sydney, is always prepared to examine throat swabbings from suspected cases of diphtheria; that is, of course, in the case of those who are unable to pay a fee. We all know that it is impossible in many cases to make a diagnosis without a bacteriological examination. I wish further to emphasise the absolute necessity in all such cases of giving a sufficient dose of antitoxin immediately the child is seen. We have lately had at the hospital four fatal cases which had been under the treatment of their medical attendants for some time before admission—in two cases for some days. In laryngeal cases a delay of 12 hours very often means all the difference between life and death. All these cases were sent into the hospital in an absolutely hopeless condition; and I venture to say that, in all probability, their lives would have been saved had antitoxin been given when they were first seen, or, failing that, they had been sent into the hospital at once.—Yours truly,

J. M. GILL.

Sydney, March 6th, 1903.

WANTED at once, a DULY QUALIFIED MEDICAL MAN for the district of Minlaton, Central Yorke's Peninsula, South Australia. Income of £400 per annum guaranteed. No other resident practitioner within 18 miles.—C. F. WREFORD, Bank of Adelaide, Minlaton, S.A.

Digitized by Google

The Sanatorium for Consumption at Wentworth Falls, N.S.W.

THE new sanatorium at King's Tableland, near Wentworth Falls, N.S.W., was opened by the State Governor on February 18th. The event signalised a red-letter day in the history of the war against tuberculosis in New South Wales.

Situated in the heart of the Blue Mountains, and surrounded by magnificent scenery, the new home has in its position all the natural advantages which might contribute to the success of its mission. The site was originally the property of Mr. Kelso King, and its purchase, together with the addition of the necessary buildings and full equipment, amounted to about £5000. Altogether the property embraces 300 acres, and in securing a place on which the work of pioneering had been accomplished many advantages were gained. The buildings which comprise the institution stand in the midst of a few acres of vigorous young fruit trees and sheltered by well-grown pine plantations, and there is a sense of homeliness and comfort which must be appreciated by the inmates. The country immediately adjoining the institution affords excellent opportunity for walking, which is most beneficial to sufferers in the early stages of the disease. In securing isolation from centres of population the committee has guarded against any objection on the part of the public, and at the same time gained complete immunity for the patients.

To secure the fullest measure of open-air treatment has been the dominating influence in the construction of the wards, and the hon. architects, Mr. H. C. Kent and Mr. G. Sydney Jones, have adopted closely the lines to be followed at the King's English sanatorium in Surrey. The buildings in which the patients will be confined are practically shells. Windows and doors occupy most of the wall space, and the inmates can be moved with the least degree of effort to commodious verandahs. The original house of six rooms, which was purchased with the estate, forms the central portion of the sanatorium. It will be used for accommodation by the matron and nursing staff.

Immediately at the rear the wings representing the wards run out at right angles. A covered way, fully open to the north, on each side leads to the accommodation for patients, comprising in the one instance two wards containing six beds, and in the other one ward of six beds and two with single beds. Single wards are recognised as the ideal lines on which to proceed, but owing to the increased expense the committee was unable to build them throughout. The cubic space per bed is estimated at 1200 ft. All walls and ceilings inside have been painted and varnished, and everything is constructed on a plan conducive to scrupulous cleanliness. Other additions undertaken by the committee have been a large dining and sitting room and a residence for the doctor. When funds are available the block will be completed by the erection of a kitchen and laundry at the rear.

The resident medical officer is Dr. McIntyre Sinclair, who has had an extensive experience in sanatorium work, having been assistant medical officer at the sanatorium at Cotswold, in Gloucestershire. Miss Mulholland, the first matron, was trained at Sydney Hospital, and was subsequently matron of the district hospital at Bathurst.

THE OPENING CEREMONY.

Large numbers of people proceeded from Sydney to be present at the opening ceremony. The visitors were met at the Wentworth Falls station and reached the sanatorium after a pleasant drive of about five miles. Many others attended from Katoomba and the surrounding neighbourhood, and when Sir Harry Rawson declared the home open there were upwards of 100 present, amongst others being Major Holman, A.D.C., Sir William and Lady Lyne, Lady See, Mrs. Cecil Purser, Dr. and Mrs. G. E. Rennie, Dr. and Mrs. Mills, Dr. and Mrs. Hinder, Dr. Spark, Dr. Watkins, Dr. Read (visiting medical officer to Thirlmere Home), Senator and Miss Gould, Mr. J. J. Cohen, M.L.A., Miss McGahey (matron Prince Alfred Hospital), Dr. Sydney Jamieson, Mr. W. P. Faithfull, Mr. G. Sydney Jones, Dr. and Mrs. Taylor Young, and the following members of the executive:—Mr. J. H. Goodlet, Dr. Sydney Jones, Mr. H S. Levy (hon. treasurer), Dr. Cecil Purser (hon. secretary), Miss M. Harris, Mrs. Hugh Dixson, Miss Fairfax, Miss Dibbs, Mrs. Langer Owen, Miss Mulholland (matron), Dr. McIntyre Sinclair, and Mr. Frank Grimley.

Dr. Purser read a statement showing the present position of the fund, and touching briefly upon the work accomplished and that in hand.

Sir Harry Rawson, having been presented with a gold key by Mr. J. H. Goodlet, then declared the home open. He said that while in New South Wales he had played a part in a great many functions, and he had no doubt that the initiation of the King's Tableland Home for Consumptives was among the most important. During the past 20 years the public had been awakening to the significance of the direful enemy which existed in consumption. Unlike cholera and other diseases, consumption came so gradually that a sufferer was in an advanced stage before the gravity of his position was realised. When the disease became advanced it was hopeless, but in the early stages it could be fought successfully, and he trusted that the home opened that day would be followed by others of a similar class, and that a hospital for extreme cases would be established in Sydney. Of course that could not be done immediately, and he doubted if at present any assistance could be granted by the Government. The committee must appeal to the generosity of the public, and he was sure it would not be in vain. He and Lady Rawson would become contributors, and he would be glad to assist the movement in any way in his power. He prayed that God would bless the endeavours of all who assisted to fight so terrible a disease.

After an inspection of the wards the visitors were entertained by members of the executive at luncheon. Mr. J. H. Goodlet presided. After the loyal toast the chairman proposed "The State Governor," to which Sir Harry Rawson briefly responded.

Sir William Lyne proposed "Success to the King's Tableland Sanatorium."

Dr. Sydney Jones, in reply, said:—This is a red-letter day in the history of the war against tuberculosis in New South Wales. We have just witnessed the opening of the first sanatorium for the treatment of consumptives in the State, constructed on the most approved lines. I notice with much satisfaction that in the plan attached to the first prize essay for the King's Sanatorium shortly to be erected in England the arrangement of the buildings is practically identical with that which exists here. It is much to the credit of our honorary architects that they devised a plan which so nearly corresponds with that which, as it has gained the first prize, may fairly be assumed to represent the combined wisdom of the best scientists of Great Britain on this matter. Everyone here must be impressed with the fact that quite half of the wall space in the wards is occupied by windows and doors, which will be kept constantly open. It will thus be possible to secure the first and most important factor in the open-air treatment, namely, that the patient shall breathe pure air both by night and by day. The aim is to secure constant renewal of the

Digitized by Google

atmosphere so that it shall be as pure, or almost as pure, inside the building as it is outside. This can be better done in single-bed wards, two of which have been erected—an arrangement which is more expensive than that in which a number of patients occupy the same ward. The increased cost alone prevented the committee from adopting the one-bed system.

Many years ago I, in common no doubt with other medical men, observed how frequently well-to-do consumptives recovered their health on abandoning the towns and living an open-air life on stations or farms in the dry air of the interior of this State. It seemed to me, then, that it was only fair that an effort should be made to provide for the poor, suffering from consumption, an equal chance of recovery. I suggested the establishment of farm hospitals for that purpose. You may easily imagine, then, with what satisfaction I see to-day the inauguration of a system which will secure to them all the advantages which the wealthy have enjoyed, with the added advantage of the constant supervision and direction of a resident medical officer. It has been said by some people that we should have built this sanatorium some time ago. Those who made this statement could not have been fully acquainted with the difficulties which have stood in the way. Of these, the chief was the comparatively small sum subscribed by the public, a lack of response which was partly due to the unwise utterances of one or two persons, but mainly to the fact that the community failed to realise the magnitude of the danger to be combated, and perhaps doubted the efficacy of the open-air treatment. At the present day, however, after so much has been said and written upon the subject of tuberculosis, no one can be ignorant of its widespread prevalence and its curability when treated in a sanatorium in an early stage. The statistics collected by Dr. Burton Fanning, of Norwich, and communicated to the Tuberculosis Congress in London, show recovery and quiescence of the disease in 88·4 per cent. of cases if only the treatment is commenced soon enough and perseverved with long enough. Then there is the pecuniary test of the efficacy of the treatment which must convince the most sceptical. It is this: the sick insurance societies in Germany have found that it actually pays them better to erect sanatoria for the treatment of their tubercular clients than to give them sick pay. Another cause for delay in erecting this sanatorium was due to the necessity under which the committee found themselves placed of undertaking the support of the Thirlmere Home. Perhaps the delay may have partially arisen from the proverbial slowness of the Englishman to adopt new methods. If we Australians do partake of this attribute of our kinsmen across the sea we may also claim to possess that dogged perseverance and determination to succeed which also characterises them once they have put their hand to the plough.

Dr. Purser has already told you that the annual cost of the maintenance of this sanatorium and Thirlmere will amount to £3000, and that our total income from all sources is only £2000. Where is the balance to come from? Here is an opportunity for some of our wealthy men to endow beds. Friendly and benefit societies would find it to their advantage to do the same. For the small sum of £70 a year they would be entitled to have one patient always in the sanatorium. Not the least of the advantages of a sanatorium is its educative influence. The inmate learns how to prevent re-infection in his own person, infection of his neighbours, the prime importance of fresh air in the preservation and restoration of health, and the value of cleanliness—using the word in its widest sense. This knowledge he will naturally communicate to his relatives and friends after leaving the sanatorium and thus help to stamp out the fell disease. Should a serum or drug, or even "an inhalation of heated air and a new gas" be discovered to-morrow capable of curing the disease, sanatoria will still be necessary for promoting the resisting powers of the patient and for their educative influence.

Other toasts were: "The Chairman and Executive Committee," proposed by Sir Harry Rawson, and responded to by Mr. Frank Grimley; "The Honorary Secretary, Dr. Purser," proposed by Mr. Harry Levy, and responded to by Dr. Purser, and "The Press," proposed by Dr. Purser, and responded to by representatives of the *Sydney Morning Herald* and *Daily Telegraph*.

His Excellency the Governor and the members of the executive committee were subsequently entertained at afternoon tea at Sir John See's country residence.

THE BATTLE OF THE CLUBS.

Queensland.

THE following resolutions have been passed during last year by the Queensland Branch of the British Medical Association:—

B.A.F.S. MEDICAL INSTITUTE.

1. That members of the Branch shall *not meet in consultation* the medical practitioners employed by the Brisbane Associated Friendly Societies' Medical Institute until the agreement entered into by them shall have been amended to the satisfaction of the Branch.
2. That, except by special resolution of the Branch at a meeting called for the purpose, members of the Branch shall not meet in consultation medical men who now hold, or *who shall have held*, the position of medical officer to the Brisbane Associated Friendly Societies' Medical Institute.

A.N.A.

1. That, as the Australian Natives' Association is not a purely benefit society, medical appointments in connection therewith are *inimical* to the interests of the profession.

New Zealand.

We have received the following letter which speaks for itself:—

DEAR SIR,—I am enclosing a copy of an advertisement which is appearing in the Australian and New Zealand papers. You will doubtless have received a former letter from me in which I told you of our fight with the Friendly Societies here. Well, this advertisement is the outcome of that dispute, and I want you to warn your members against accepting such a position.

Last evening we had a united meeting of medical practitioners here, and the following resolution was unanimously carried:—

> That the members of the Auckland Section of the New Zealand Branch of the British Medical Association pledge themselves to do all in their power to prevent any medical practitioners from being appointed to the position of surgeon to the United Friendly Societies' Dispensary, and that they will ostracise any medical man who accepts such a position.

I have only to draw your attention to the following clauses in their constitutions to enable you to judge how they wish to sweat the medical profession:—

> *Clause 2.*—They must attend professionally when required, either at home or at the dispensary, members, their wives, and children under 18 (children to include step-children and adopted children).

Digitized by Google

Clause 4.—They will be required to consult together if necessary, to perform all necessary surgical operations, and, when necessary, administer chloroform, and in all cases when required vaccinate children of such members.

Clause 5.—All drugs, etc., will be supplied by the board.

Clause 6.—All instruments are to be supplied by the surgeon.

Clause 9.—Salary to be £400 per annum, with fees for attendance on children over 18 years, such fees to be fixed by the board.

Clause 10.—They shall be allowed to charge members' wives the sum of £2 2s for accouchements.

Clause 11.—The surgeons shall devote their whole time and attention to the professional duties devolving upon them as the medical officers of the board, and shall not be engaged in the practice of their profession other than in accordance with these conditions or such further or other conditions as may from time to time be agreed upon by such practitioners and the said board.

I may further state that I have interviewed the secretary to the Dispensary Board, and he informs me that each surgeon will have to attend about *800* members and their families.

This means that the surgeon would attend a member and his family, perform all operations, and administer chloroform for the magnificent sum of 10s per member per annum.

Hoping that you will bring this matter as prominently as possible before your members, I am, yours faithfully,

TRACY R. INGLIS,
Hon. Secretary, Auckland Section New Zealand Branch, British Medical Association.
Auckland, N.Z., February 19th, 1903.

Medico-Ethical and Medico-Legal.

A CORRESPONDENT writes: I should be glad if you would kindly give me your valuable advice on the following:—

1. Is a medical man justified in giving an anæsthetic to a patient being operated upon for chronic empyæma of antrum of Highmore (the supposed result of a root of tooth being forced into cavity during extraction) by a surgeon dentist? (The operation above the alveolus intended.)

2. If so, is the medical man in any way responsible should the operation prove unsuccessful?

3. If a club patient, is the medical man justified in granting the usual club certificate as to patient's inability to attend work?

4. If the services of the medical man be called in (should the case progress unsatisfactorily), is he compelled to attend under the club rules?

*** 1. We presume that the "surgeon dentist" has not a special surgical qualification. If this be so, we think he is not justified in operating for chronic empyæma of the antrum, and the medical man who gives an anæsthetic under these circumstances is covering an unqualified practitioner. 2. No. 3. No. 4. We think so; but the club rules must decide this point.

Another correspondent writes:—According to the usage of this practice I am allowed a fee of 10s 6d by the Railway Commissioners for first aid to their employees when injured at their work. During the last fortnight two comparatively slight injuries were suffered by members of the local lodges who are also railway employees. In such a case am I justified in charging the Commissioners for first aid?

*** Yes. We do not think that the fact of these two men being members of local lodges affects the question.

A Medical Practitioner Heavily Fined.—At the Newtown Police Court, Alfred Murray Keighly was charged that he, on December 17 of last year, not being a legally qualified medical practitioner within the meaning of the Medical Practitioners' Act of 1898 and the Amending Act of 1900, did use a certain description or title, to wit, "legally qualified medical practitioner," implying thereby that he was a legally qualified man. The defendant signed and issued a certificate under the Public Health Act to the effect that he had attended a person suffering from scarlatina. This certificate he issued and forwarded to the local authority for health at Newtown as a legally qualified medical practitioner. For the defence Alfred Murray Keighly stated that he held a diploma from the College of Ohio, America, which entitled him to practice in America. He went through the Cincinnati College of Medicine for a regular course, and was duly examined, and upon that examination he got the diploma produced. On January 11, 1901, witness was charged at Newcastle with a breach of the Medical Practitioners' Act, and was fined £50, but the fine was afterwards reduced to £10. Witness did not produce his diploma from Ohio on that occason. In 1901 he made application to the Medical Board in New South Wales for registration and was refused. He also made application again in September of last year. The magistrate ordered the defendant to pay a fine of £50, in default, imprisonment for four months. Defendant gave notice of appeal.

HOSPITAL INTELLIGENCE.

Auckland Hospital—The Auckland Hospital is just now passing through troublous times owing to local bodies failing to pay their contributions, and certain exceptional expenditure which will not occur again. The Government is very dilatory in coming to assist, although it was understood some time ago that £1500 would be available from this source. The expenditure cannot be reduced without injuring the work of the hospital, and if this trouble is to be avoided in future something will have to be done to enable the board to promptly get settlement of its claims against local bodies and also to increase the rating for hospital purposes. Provided the institution is economically managed, and that only suitable patients are admitted, the extra rating would be objected to by very few.

Children's Hospital, Sydney—A deputation recently waited upon the Premier (Sir John See) in reference to the site of the Children's Hospital, which it is proposed to build. The Hon. F. T. Humphery said the object of the deputation was to bring under the Premier's notice the inadequacy and unsuitableness of the site which had been granted for the erection of a Children's Hospital. Dr. Clubbe pointed out the extreme importance of getting on with the new building without delay. More than ten years ago the medical staff realised that the buildings at the Glebe, which he was sorry to say were still occupied, were quite inadequate to meet the demands of a city the size of Sydney. In the present building there were 50 cots, whereas at least 150 were wanted. The present buildings were old, and were never designed for a hospital. Consequently, when many acute cases were crowded in, they became insanitary. For this reason they had lately

Digitized by Google

been obliged to refuse cases of typhoid fever. They ought to be in a position to deal with all the really urgent cases that needed hospital treatment, but at present that was absolutely impossible. A large and modern out-patient department had lately been built in the heart of the city, where all those children of the poor who could be treated as out-patients were attended to, but every day amongst those that sought relief a certain number were found who ought to be sent into a hospital. But until the new hospital was built many such cases must be sent away to take their chance. He asked the Premier to do what he could to expedite matters with a view to enabling the board to acquire the land they required in order that the new building might be put up with the greatest possible despatch. Sir John See, in reply, said he recognised the reasonableness of the request made to him. He would visit the locality, and see what could be done to meet the deputation's request.

Newcastle Hospital.—At the meeting of the committee of management of the Newcastle Hospital, held on March 4th, a deputation was appointed to wait on the Premier in regard to a grant of £2000 promised last year by the Government for the erection of a new kitchen and laundry. It was decided to call for tenders for converting some of the small wards in the male surgical section into a large ward, so as to ensure more space and more convenience in supervision.

Launceston Hospital.—At the monthly meeting of the hospital board the visiting committee again remarked on the congested state of the hospital, patients having to be refused admission on several occasions owing to all the beds being occupied. The honorary medical staff forwarded a recommendation that the Government be requested to at once take steps to provide a proper building for the reception of all infectious cases.

Women's Hospital, Sydney.—The seventh annual meeting of the directors of and the subscribers to the Women's Hospital and Dispensary was held on March 5th. The report for the past year stated that during the year there had been 367 cases treated in the indoor and 1364 in the outdoor departments, while 360 visits had been paid by the district nurse and tutor, and 3570 by various nurses from the institution. Six deaths had occurred, making a total of 19 since the inception of the hospital in 1893, but some of the patients were in a dying state when they were admitted. The aggregate receipts were £1536 0s 5d, and the expenditure £1750 1s, while the bank overdraft on December 31st, 1902, was £241 9s 4d. The average cost per bed was £50. Judge Backhouse, in moving the adoption of the report and balance-sheet, paid a high tribute of praise to the medical and nursing staffs of the institution, and particularly to the matron, Miss McLeod. He looked upon a women's hospital as one of the most important of all such establishments, and, indeed, as an absolute necessity. They should have such a hospital in their midst, and it should be equipped with all that was necessary. Sir James Graham briefly seconded the motion, and said that although the hospital was small as far as buildings went, its work had been most effective, and the class of work it undertook was one of the most important of all medical charities. It was resolved that the amalgamation of the Women's Hospital with the Benevolent Society of New South Wales be confirmed.

Queen Victoria Homes for Consumptives.—The fifth annual meeting of the Queen Victoria Homes for Consumptives Fund was held on February 17th. During the 16 months covered by the report there had been 81 male patients and 55 female patients admitted—a total of 136—while 78 males and 39 females were discharged. Of those discharged 93 were benefited, and 24 were unrelieved; 11 had died. The daily average number of patients during the year was 40. On December 31, 1902, there were 40 patients remaining in the home, and 15 applicants were waiting for admission. The average cost per bed per annum was £37 6s. There had been a further decrease in the number of deaths, and a greater number of patients had been benefited, a fact largely due to the discrimination in the selecting of the patients. A large number of those seeking admission had to be refused since they were suffering in late stages of the disease, and were too ill to send to Thirlmere. During the 16 months over which the report extended £1002 10s 5d had been received in subscriptions and donations, while the Government subsidy amounted to £804 1s 7d, and contributions from patients to £12 1s. The expenditure reached £2808 9s 2d. In moving the adoption of the report and balance-sheet the Lord Mayor eulogised the work of the year. Sir James Fairfax, in seconding the motion, said it appeared to him that the results achieved at Thirlmere and the work to be undertaken at King's Tableland were but the beginning of the realisation of the aims of the fund committee. He referred briefly to various sanatoria which he had inspected abroad. Sir James Graham said it was recognised that while the function of the Government was not charity-giving, there existed a distinct duty to protect the public from the ravages of consumption which in its mortality far outstripped any other disease in the community. Perhaps less assistance comparatively was received by the fund from the Government than by any other institution in the State. There was nothing which should appeal more powerfully to the public benevolence, no single charity which had a greater claim to the charitable instincts of charitable men and women. Dr. Purser referred to the necessity for increased contributions to enable the committee to maintain the two homes. In future the expense would be about doubled, and it was very desirable that the public should subscribe sufficiently to keep the fund intact. Already nearly £5000 had been expended on the sanatorium at King's Tableland, and if the capital was to be drawn upon for maintenance it would quickly be absorbed, and the onus of upkeep would fall on the Government.

PUBLIC HEALTH.

New South Wales.

Insanitary Dairies.—At a recent meeting of the Board of Health the president, Dr. Ashburton Thompson, submitted the following abstract of the report recently made by one of the veterinary inspectors on dairy premises within the municipality of Ulmarra, on the Clarence River:—"The number of registered dairies was 126. The general state of these was reported as 'good' in 23 only (or about one-sixth), as 'fair' in 63, and as positively 'bad' in 40, or about one-third of the total. Twenty of these premises had no sanitary accommodation at all, and 69 of the remainder were furnished with cesspits, notwithstanding that this dangerous form has been steadily condemned by the Board and has practically been got rid of as regards dairy premises in nearly all other parts of the State. Local inspections are not regularly made, the local register is badly kept, and the classification of the inspector classed the local supervision as 'inefficient.'" "In other words," Dr. Thompson stated, "the Act is little more than a dead letter, in as far as its execution

Digitized by Google

depends on the local authority (the municipal council). The milk, cream and butter produced in its district necessarily lies under all the imputations which this neglect of its statutory duty by the municipal council authorises." It was agreed that the provisions of the law should be administered in such a manner as would compel the owners of dairies to put them in a proper sanitary condition.

Bubonic Plague.—In view of the re-appearance of the bubonic plague both in Brisbane and Fremantle, the health authorities are making a careful examination of rats caught in different portions of the city, with the view of ascertaining whether or not they are infected with the plague bacilli. So far the rats have been found to be in a healthy condition, and as a large number of them has been examined, the result bears out the statement made a fortnight ago by Dr. Ashburton Thompson that so far as infection from rats is concerned Sydney is at the present moment in as healthy a condition as any place in the Australian States.

Typhoid Fever at Coonamble.—In connection with the outbreak of typhoid fever at Coonamble, Dr. Millard, of the Public Health Department, has come to the conclusion that the disease originated at a local shop doing a very large business in summer drinks, of which "milk shakes" formed a considerable part. It is reported that one of the employees of the place contracted the disease and continued to perform his duties. Upon ascertaining the facts, Dr. Millard promptly directed the proprietor to discontinue selling the drinks in which milk formed any part. Since the outbreak began, there have been over 200 cases in Coonamble, and several deaths have occurred. The epidemic is now abating. Dr. Ashburton Thompson, President of the Board of Health, states that the worst previous outbreak of typhoid fever in a country town was at Balranald in 1889, when, out of a total population numbering 670 persons, there were 120 cases, with 15 deaths. The infection in this outbreak was diffused in an underground water tank, which was used by the residents owing to the coolness of the water.

Victoria.

The Melbourne Cemetery.—In the Melbourne Cemetery corpses have been interred so close to the boundaries that only 10 feet or 12 feet of space separates the graves from the street. The Board of Health regards this practice as a distinct menace to public health, and about 18 months ago it forwarded to the Cemetery Trust a resolution declaring that a margin of 40 feet round the enclosure should be kept free from graves. The Trust, however, declined to act in accordance with this resolution as far as the sides fronting Macpherson-street and the Park were concerned. The Minister of Health (Mr. Bent) has directed Dr. Gresswell to write to the trust, informing that body that he is prepared to take any constitutional measures that is open to him to prevent further burials within the 40 feet margin. Short of passing a special Act of Parliament, there is only one course open to the Minister by which to compel the observance of his direction, and that is to suspend the trust.

West Australia.

Vital Statistics.—The births registered in West Australia during the quarter ended September 30th, 1902, numbered 1653, and the deaths during the same period were 648, the births thus exceeding the deaths by 1005. Of these deaths 155 were of children under 1 year of age. The chief causes of death were: Zymotic diseases 64, or 9·88 per cent. (typhoid fever 14, influenza 15); constitutional diseases 84, or 12·96 per cent. (cancer 26, phthisis 43); developmental diseases 53, or 8·18 per cent. (premature birth 23, old age 23); local diseases 323, or 49·84 per cent. (diseases of the nervous system 46, of the circulatory system 82, of the respiratory system 104, enteritis 25).

Tasmania.

Central Board of Health.—At the last meeting of the Central Board of Health the President said Tasmania was the only State that had been clear of the plague, and they wanted to keep clear if possible. Infectious diseases: The returns for infectious diseases in Hobart and Launceston Hospitals for December and January were: Typhoid, 60 cases, 6 deaths; scarlet fever, 144 cases, 7 deaths; diphtheria, 22 cases, 4 deaths; measles, 6 cases. During that period there were registered 4 deaths from influenza, 9 from whooping cough, 9 from phthisis, and 13 from other forms of tuberculosis. The returns from the Isolation Hospital for December and January showed that during that period there were 20 cases of scarlet fever admitted, and three patients developed typhoid; 38 patients were discharged as cured from scarlet fever, leaving seven cases of scarlet fever and two of typhoid remaining under treatment on 1st inst. One death occurred from scarlet fever and one from typhoid. The question of typhoid fever at the Isolation Hospital (four cases) was discussed. It was not deemed necessary to appoint a board of inquiry after hearing the statements of Drs. Butler and Crouch, but it was decided to take steps to improve the existing sanitary arrangements.

Queensland.

Bubonic Plague.—For the week ending 14th March, 1903, three cases of bubonic plague occurred in Brisbane. The total number of cases to date were: Brisbane 8, Rockhampton 2, Townsville 3. The number of rats examined during the week at the Bacteriological Institute was 310, and the number of infected rats found, 3.

PERSONAL ITEMS.

The University of Edinburgh has conferred the degree of LL.D. upon the Hon. Sir H. Normand MacLaurin, M.D., Edin., the Chancellor of the University of Sydney.

Dr. Christopher Bollen, of Port Adelaide, S.A., has resigned his commission as a justice of the peace.

Dr. T. A. Price has resigned his appointment as assistant medical superintendent at the Hospital for the Insane, Toowoomba, Q.

The Canterbury College Board of Governors has accepted the resignation of Dr. Denby of the professorship of biology, and has appointed Dr. Chilton, of Christchurch, to the position, provided he disposes of his present practice as an oculist within 12 months. He, however, is to be at liberty to act as ophthalmic surgeon, subject to the approval of the board.

Dr. Whitton, who has been practising in Reefton, N.Z., for the past 18 years, has sold his practice to Dr. Scott, of Kumara. Before leaving the Reefton district,

Digitized by Google

a large number of the leading residents entertained Dr. Whitton at a supper, and presented him with a gold watch as a memento of his connection with the district, and as evidence of the esteem in which he was held by them and their families. Many kind things were said of Dr. Whitton's services, both as superintendent of the hospital and as medical officer to the friendly societies. Dr. Whitton has commenced to practice in New Plymouth.

Dr. Frank Fitchett has commenced practice in the Octagon, Dunedin, N.Z.

Dr. E. J. O'Neill, formerly house surgeon at the Dunedin Hospital, N.Z., and more recently surgeon-captain of the Sixth New Zealand Contingent, has obtained the qualifications of M.R.C.S. (Eng.) and L.R.C.P. (Lond.).

Dr. Millen Coughtrey has been elected a member of the Dunedin, N.Z., Drainage and Sewerage Board.

Dr. Dawson, of Woodville, N.Z., who accompanied the Seventh Contingent to South Africa, was presented by the returned troopers with a valuable gold watch and pendant consisting of a Kruger half-sovereign.

Dr. Ulrich (a son of the late Professor Ulrich), who was until recently on the staff of Christchurch Hospital, has been appointed assistant medical officer of Mount View Asylum, Wellington.

Dr. Halse Francis, of Makotuku, has succeeded to the practice lately vacated by Dr. Gale at Kaikoura.

Dr. C. Fenwick, who was recently surgeon at the Christchurch Hospital, and also spent some two and a half years with the troops in South Africa, has commenced practice in Wanganui.

Dr. J. S. Elliott, who was at the seat of war in South Africa, and subsequently held the appointment of house surgeon at the Chichester Infirmary, England, has been appointed assistant medical officer to the Wellington Hospital, N.Z.

Dr. T. Hope Lewis, of Auckland, N.Z., who, with Mrs. Lewis, left about 12 months ago on a visit to the old country, has just returned. In addition to spending a period in London, he visited many of the capital cities of Europe, and also the United States.

Dr. Kenny, at one time Resident Medical Officer of Wellington Hospital, has been appointed to control Te Aroha Hot Springs, recently taken over by the Tourist Department.

Dr. Edmunds, who has lately arrived from Queensland, has gone to Kawakawa, N.Z., with a view to commencing practice there.

Dr. J. H. Wilson has removed from Trial Bay to Millthorpe, N.S.W.

Dr. Philpott, of the Yarra Bend Asylum staff, has been appointed senior medical officer of the asylum, in place of Dr. Stuart Macbirnie, who recently resigned.

Dr. J. Small, the president of the Geelong Commun na Feine, was recently entertained by the directors of that society at Barwon Heads. A fishing competition, Highland music by Piper McLennan, Highland dancing and a banquet were the principal items in the programme.

Dr. A. H. Bennett, one of the most popular residents of Crystal Brook, South Australia, will leave shortly for Europe, where he will remain for about 18 months, for the purpose of further study. On his return he proposes to take up work in Adelaide. His place will be taken by his brother, Dr. T. C. Bennett, of Gumeracha.

Dr. Shaw, who has left Emmaville for Sydney, was entertained at a social on February 27th. Mr. Chandler presented Mrs. Shaw with a silver brush set and Dr. Shaw with a gold chronograph and gold albert. Mr. Martin, on behalf of the hospital and medical fund committees, handed Dr. Shaw an electroplate spirit tantalus; and for the Oddfellows Mr. Doyle presented an illuminated P.G. certificate.

Dr. Cedric V. Bowker, late medical superintendent of the Sydney Hospital, has commenced practice at Liverpool-street, Hyde Park, Sydney.

Dr. Leith Napier has resigned his appointment of surgeon and gynæcologist at the Adelaide Hospital, medical officer to the Adelaide Gaol, and medical officer to the Adelaide Lunatic Asylum, and commenced general practice at North Terrace.

Dr. H. M. C. Dalton, of Murrumburrah, N.S.W., has been appointed a Justice of the Peace.

Dr. John Kirkwood, who arrived recently from London, has succeeded to the practice of Dr. J. Ryan at Cooma, N.S.W.

On March 2nd last a complimentary banquet was tendered to Dr. Joseph Ryan on the occasion of his departure from Cooma. All the leading townspeople were present, and in the course of the evening Dr. Ryan was presented with a silver tea and coffee service from his many friends in Monaro.

At its last meeting the Melbourne Women's Hospital committee received with regret the resignation of Dr. Eugene Anderson, one of the honorary surgeons of the out-patients' department. Dr. Anderson had been connected with the institution in an honorary capacity for 14 years.

Dr. Muir has resigned his appointment at the Women's Hospital, Melbourne. He has at different periods held all the resident offices of a medical character in the hospital, and Dr. Cuscaden, chairman of the midwifery honorary staff, spoke in high praise of the courteous and conscientious manner in which he had uniformly discharged his duties.

Dr. Loria, of Cracow, has started practice on North Terrace, Adelaide, S.A., as a specialist in obstetrics and diseases of women.

Dr. Morgan has resigned his position as assistant honorary medical officer to the Adelaide Children's Hospital, having been appointed bacteriologist to that institution.

We learn that Dr. Beattie Smith, late medical superintendent Metropolitan Asylum, Melbourne, has commenced

Digitized by Google

consulting practice in Collins-street. In order that he might continue his lectures on clinical mental diseases, in connection with the Melbourne University, the authorities have granted him facilities for teaching at Kew.

MEDICAL APPOINTMENTS.

QUEENSLAND.

Brockway, Archibald Birt, M.R.C.S. (Eng.), and Hopkins, George Herbert, F.R.C.S. (Eng.), to be the first members of "The Dental Board."

O'Brien, Richard Alfred, M.B., B.S. (Melb.), to be a Health Officer for the purposes of "The Health Act of 1900."

NEW SOUTH WALES.

Barber, Alexander, J.P., L.R.C.S. (Irel.), to be an Appointed Member of the Licensing Court for the Licensing District of Penrith.

Kelly, Lieut.-Colonel Vandeleur, C.B., F.R.C.S.E., L.R.C.P.E., to be Resident Surgeon and Dispenser at the Trial Bay Prison, *vice* Dr. J. H. Wilson, resigned.

NEW ZEALAND.

Brugh, James, M.B., Ch.B. (Univ. N.Z.), to be Public Vaccinator for the District of Black's and Blackstone.

Conlon, William Aloysius, M.B. (Syd.), to be Public Vaccinator for the District of Reefton.

McClelland, Hugh Augustus, M.R.C.S. (Eng.), to be a Port Health Officer for the Port of New Plymouth.

Morkane, Michael Charles Frederick, M.B., Ch.B. (Univ. N.Z.), to be Public Vaccinator for the District of Kumara.

Scott, Edward Henry, M.B., M.S. (Syd.), to be Public Vaccinator for the District of Reefton.

Slater, Howard, M.R.C.S. (Eng.), to be Public Vaccinator for the District of Waihi.

Stenhouse, Andrew, M.B. and B.S. (Univ. N Z.), to be Public Vaccinator for the Districts of Catlin's, Balclutha, and Popotuna.

WEST AUSTRALIA.

McWilliams, Dr. F. G., Principal Medical Officer of the Defence Department, Perth, to be a member of the South African Relief Fund Committee.

Willis, Dr. C. S., to be Officer of Health, Lennonville, *vice* Dr. Ramsay, resigned.

TASMANIA.

Clarke, A. H., M.R.C.S. (Eng.), to be Honorary Pathologist to the General Hospital, Hobart.

SOUTH AUSTRALIA.

Fischer, G. A., M.B., B.S. (Adel.), to be Physician in charge of the nose and throat department of the Adelaide Hospital.

PROCEEDINGS OF AUSTRALASIAN MEDICAL BOARDS.

SOUTH AUSTRALIA.

Catford, Harold Robert, M.B. (Melb.), 1899.

TASMANIA.

Addison, E. J., L.R.C.P. (Edin.), 1902, L.R.C.S. (Edin.), 1902, L.F.P.S. (Glas.), 1902.

NEW SOUTH WALES.

Aiken, Percy Norman, M.B. (Univ. Syd.), 1903.
Cahill, John Hampton, M.B. (Univ. Syd.), 1903.
Conroy, Lionel Bigoe Henzell, M.B. (Univ. Syd.), 1903.
Cock, Lawrence William, L.R.C.P. (Edin.), 1899; L.R.C.S. (Edin.), 1899; L.F.P.S. (Glasg.), 1899.
Fox, Hedley Ebenezer, M.B. (Univ. Syd.), 1903.
Gill, George Frederick, L.R.C.P. (Lond.), 1902; M.R.C.S. (Eng.), 1902.
Marsh, Harold Seaward, M.B. (Univ. Syd.), 1903.
Michôd, Frederick Archibald Hope, M.B. (Univ. Lond.), 1898; L.R.C.P. (Lond.), 1897; M.R.C.S. (Eng.), 1897.
Nicoll, Alexander, M.B., M.S. 1883; M.D., 1891 (Univ. Aberd.).
Rhodes, Arthur, M.B., B.S., B.A.O., 1894; M.D., 1901 (Univ. Dubl.).

For Registration under Clause 3, Act 70, 1900.

Wilbe, Ernest Edward.

BIRTHS, MARRIAGE AND DEATHS.

BIRTHS.

BROWN.—On February 6th, at "Leighton," Wellington-street, Windsor, N.S.W., the wife of Dr. R. C. Brown—a son.

HOCKEN.—On March 9th, at West Wallsend, Newcastle, the wife of J. Preston Hocken, M.D.—a son.

KING.—At "Compton," West Maitland, N.S.W., on February 11th, 1903, the wife of A. A. King., M.B., Ch.M.—a daughter.

MEEKE.—On February 6th, at Arran Hill, Cobargo, N.S.W., the wife of William M. Meeke, L.R.C.P., etc.—a son.

MICHELL.—On February 13th, at Blaxney, N.S.W., the wife of Dr. Rodon Michell—a son.

PARSONS.—On January 1st, at Bodalla, N.S.W., the wife of Dr. Warren Parsons—a son.

PLUMBE.—On February 19th, at Fairholme, Singleton, N.S.W., the wife of Arthur Plumbe, M.R.C.S., Eng., L.R.C.P., Lond.—a daughter.

SHELDON.—On February 9th, Gainsborough, Darlinghurst, Sydney, the wife of Herbert Sheldon, M.B., Ch.M., Coonamble—a son.

MARRIAGE.

WOOLLEY—WATERHOUSE.—On February 12th, 1903, at St Andrew's Church, Brighton, Victoria, by the Rev. E. A. Crawford, B.A., Geo. Talbot Woolley, M.R.C.S. (Eng.), to Mary Brough Waterhouse, both of Castlemaine, Victoria.

DEATHS.

HOLMES.—On December 13th, 1902, in London, Richard Holmes, L.R.C.S., and L.R.C.P.E., L.F.P.S.G., late of Peak Hill, in his 88th year.

MACCARTHY.—At Surrey, England, from typhoid fever, Ernest, youngest son of Marion MacCarthy and Chas. W. MacCarthy, M.D., Sydney, aged 15 years.

WHITE.—On February 22nd, at Sydney, N.S.W., Margaret Isabel White, M.B., late house surgeon at Adelaide Children's Hospital, Adelaide, S.A.

YOUNG.—On January 25th, at Rochford, Essex, England, Robert Young, M.B., elder son of the late William and Sarah Young, of Glenelg, S.A.

BOOKS RECEIVED.

A Manual of Practical Medical Electricity. The Röntgen Rays and Finsen Light. By Dawson Turner, M.D., F.R.C.P., Ed. M.R.C.P. London. Third edition. London: Baillière, Tindall & Cox. Sydney: L. Bruck. 1902. Price, 8s 6d.

Constipation. By A. Sherman Begg, F.R.C.S.E. Crown 8vo. Price, 2s 6d. London: Baillière, Tiadall & Cox. Sydney: L. Bruck.

A Manual of Medicine. Edited by W. H. Allchin, M.D. (Lond.), F.R.C.P., F.R.S. (Edin.). Vol. IV. Diseases of the Respiratory and of the Circulatory Systems. Price, 7s 6d. London: Macmillan & Co., Ltd. 1902.

Diseases of the Skin: their Description, Pathology, Diagnosis and Treatment, with Special Reference to the Skin Eruptions of Children. By H. Radcliffe-Crocker, M.D. (Lond.), F.R.C.P. Third edition. Vols. I and II. With 4 plates and 112 illustrations. Price, 28s. London: W. K. Lewis, 136 Gower-street, London, W.C.

LETTERS AND OTHER COMMUNICATIONS HAVE BEEN RECEIVED FROM:—

Drs. C. E. Lester, Mudgee; E. S. Hawthorne, Mudgee; R. R. S. Mackinnon, Warialda; John Macpherson, Young; Richard Jones, Bendigo; L. W. Bickle, Adelaide; W. B. Vance, Melbourne; F. E. Griffiths, Gundagai; G. H. Holmes, Warialda.

HUDSON'S "EUMENTHOL" JUJUBES (Registered) are a Gum Jujube containing the active constituents of well-known Antiseptics, Eucalyptol, Thymus Vulg., Pinus Sylvestris, Mentha Arv., with Benzo-Borate of Sodium, etc., and exhibit the antiseptic properties in a fragrant and efficient form. Sold by all chemists; tins, 1s 6d. Are Antiseptic, Prophylactic, reduce Sensibility of Mucous Membrane.

Mr. W. A. Dixon, F.I.C., F.C.S., Public Analyst of Sydney, after making exhaustive tests, says:—"There is no doubt but that 'Eumenthol' Jujubes have a wonderful effect in the destruction of bacteria and preventing their growth. . . . I have made a comparative test of 'Eumenthol' Essence and Creosote, and find that there is little difference in their bactericidal action."

Digitized by Google

THE PHYSIOLOGY OF VOLUNTARY MOVEMENTS.

An Address delivered at the Annual Meeting of the New South Wales Branch of the British Medical Association.

By George E. Rennie, M.D., M.R.C.P. (Lond.), Retiring President.

In retiring from this chair at the conclusion of my term of office, I have again to thank you most sincerely for the high honour you conferred upon me a year ago in electing me as your president. Although I am conscious of many shortcomings I can yet say with all honesty that it has been my constant aim and desire to do all in my power to extend the usefulness of our Association and improve the status of the medical profession in New South Wales.

During the past year we have succeeded for the first time in securing official recognition by the State Governor of the New South Wales Branch of the British Medical Association as a public body for presentation at levées and State functions. I think this is a matter of much greater importance than is apparent on the surface. Then our conversazione at the University in June last, when we were honoured by the presence of the Vice-regal party and other distinguished visitors, was pronounced on all sides to have been a great success. By these means we have succeeded in drawing public attention to the British Medical Association as an important public body, and such recognition must increase our influence in working out a policy of resistance to the encroachment of undesirable societies, and in maintaining the honour and dignity of the medical profession.

We have also endeavoured to make our Association a more active and useful one to all the members of the Branch. One of our meetings was held at Newcastle, and all who were present there agreed that the experiment was highly successful. Many men who are never seen at our meetings in Sydney were thus enabled to attend one meeting at any rate in the year, and to realise that they are members of a real active association and not mere hangers on to a Sydney clique. Might I urge upon the new Council the importance of carrying on this policy, and holding meetings in other country centres as opportunity offers. Some two or three years ago at my suggestion negotiations were opened up with the medical men in some of the larger country towns with a view to the formation of local sub-branches of the Association, but I regret nothing came of this attempt. I again urge upon medical men in the larger centres in the country the great desirability of their meeting together, say once a quarter, to dine together, and to discuss matters medical and ethical. Surely such meetings would tend to smooth over many a difficulty, to bring together men from neighbouring towns and districts who have perhaps no other opportunity of becoming acquainted with one another, and thus perhaps lay the foundation of life-long friendships. Life is too short for the embitterment of it by petty squabbles and personal misunderstandings. I hope that a movement in this direction at some future time will meet with success.

As a further means of strengthening our position and making this Association more useful to both city and country members, I would strongly urge the desirability of the Council considering at an early date the importance of securing adequate accommodation for the central offices of the Association. We should have a central hall of our own large enough for holding all our meetings. We should have other rooms for Council meetings, for our library and reading-room, and also accommodation for the conduct of the work of the *Australasian Medical Gazette*. A central medical institute of this nature would be a standing monument to the importance of the Branch, and also of great assistance in the carrying on of our work. Our library at present is in an unsatisfactory condition, and we require more accommodation and more effective control than is possible under existing circumstances.

I have endeavoured to the best of my ability to improve the *Australasian Medical Gazette* by making it as far as possible a journal of Australasian medical news, as well as by giving each month a review of the most important current articles on different branches of medical and surgical practice from all parts of the world, and it is some satisfaction that my efforts in this direction have been received with favour. Still it is very far from being what I consider my ideal, and only those who have attempted this work can have any idea of the difficulties under which we labour. However, so long as it is your pleasure that I should be its editor, and so long as I am able to fill that position with satisfaction, it will be my constant aim to introduce new features, and to improve the *Gazette* so that we need not be ashamed to

Digitized by Google

compare it with medical journals in other countries.

As you have heard from the report of the Council, the progress made by the Branch during the past year has been highly satisfactory, and I have no hesitation in saying that a very great deal of the success of the Branch is due to the untiring efforts of our worthy honorary secretary, Dr. Hankins. The additions to our membership have been numerous, and we have now the largest number of members of any medical society in the Southern Hemisphere, and I believe I am right in saying that ours is the second largest of the colonial Branches of the British Medical Association. At the beginning of this year, under the new constitution of the parent Association, circulars were sent out from the headquarters of the Association in London asking members to send the subscriptions direct to London. This action not only threw a large amount of extra work on the shoulders of our already over-burdened honorary treasurer, Dr. Crago, but threatened, if persevered in, to do an immense amount of damage to our Branch membership. Thanks, however, to the efforts of Dr. Crago and to his vigorous protests, the circulars were withdrawn, and in future members will pay their subscriptions direct to our honorary treasurer as heretofore.

Death has been busy in our ranks, and we mourn the loss of some of our well-known men. Dr. Fairfax Ross, whom it was my privilege to know from boyhood, succumbed to an attack of ulcerative endocarditis, and no one could fail to admire his patience and fortitude during the long weary months he lived a living death. Dr. Charles Rorke, who was so highly esteemed in North Sydney by a large circle of patients and friends, was spared the agony of a long illness, and died suddenly from angina pectoris, in the midst of his professional work. Dr. Margaret White, one of the lady graduates in medicine of the University of Sydney, succumbed to an attack of typhoid fever just as she was about to enter upon a promising career in Adelaide. I had the opportunity of knowing her as a student at the University, and looked forward to her having a most successful career in South Australia. Others have died who have been less well known to us in this city, but none the less regretted by their own circle of friends and patients.

With these few introductory remarks I proceed now to the special subject of my address to you to-night. I propose to direct your attention to a subject which has occupied my mind at intervals for some years past, viz., "The Physiology of Voluntary Movements," and though you may not agree with my conclusions, my end will have been attained if I succeed in giving you something worthy of your thoughtful consideration. Want of time prevents my dealing with it in more than a somewhat sketchy and superficial manner.

We have been in the habit of thinking that there is a great difference between so-called voluntary and involuntary movements, but in the light of recent developments in our knowledge of the physiology and pathology of the nervous system, it seems open to question whether there is after all any real radical difference between the two. We may take as a type of voluntary movement the muscular actions which take place in the limbs when we decide to voluntarily move them, as, for example, flexion or extension of the arm. These movements are performed by the agency of striated muscular tissue. As a type of involuntary movement we may take the contraction of the muscular coats of the intestines. These movements are performed by the agency of plain muscular fibres. Taking the latter first, we know that the movements are practically always the result of some "reflex action," and that we have no power of voluntarily causing the contraction of the intestine. The same holds good, speaking generally, for all similar movements. In some individuals, however, there is some amount of power of effecting contraction of involuntary muscle, as some have the power of causing contraction of the pupil of the eye without attempting to accommodate. The muscular coat of the intestine only contracts when the mucous membrane is stimulated by the presence of some irritant, or partly digested food, which requires to be passed along, or by the presence of gases which have resulted from the digestive processes. Where the reflex centres for these movements are we cannot say for certain, but the existence of the nervous plexuses in the wall of the intestine is well known, and we must suppose that they have some share in effecting these contractions. In the mechanism of the sphincters of the bladder and rectum we see clearly that "reflex action" has a large part to do with effecting the emptying of these viscera.

With voluntary movement, on the other hand, there does not appear to be any such reflex action involved. No stimulus appears necessary to excite the activity of the cerebral cortex, except the stimulus of our own "will," but in the performance of voluntary movements various factors are necessary, of which under normal conditions we are not conscious. It is only when we see these factors isolated or dissected out, as it were, in the pictures of disease we meet with clinically that we come to fully realise how many conditions are

Digitized by Google

essential for the accomplishment in a normal fashion of any particular voluntary movement we may wish to perform.

In the first place, it is obvious that the particular muscles involved in the performance of any voluntary movement must be histologically and physiologically healthy. Any alteration in the histological structure, such as the invasion of the muscular bundles by fat, or the fatty degeneration of the muscle fibres themselves, will necessarily impair the contractility and the usefulness of the muscles. But the muscles must also be in a healthy physiological condition. In the contraction of a muscle, whether through the medium of nervous electrical, mechanical or thermal stimulation, certain chemical and electrical phenomena are induced—in fact, are the essential phenomena of, and determined by, the muscular contraction. But from a study of some pathological conditions of muscles, we know that these chemical changes may be inhibited, and muscular contractions may fail to be accomplished, although the histological structure of the muscle may be perfect and unaltered. There is a rare disease known as family periodic paralysis, in which at irregular intervals the subjects of it become completely paralysed. The muscles cannot be thrown into action voluntarily, and all evidence of functional activity of the muscles is temporarily lost; they fail to respond to electrical, thermal or mechanical stimuli, yet in the course of a few hours the paralysis passes off, and the muscles once again resume all their normal functional activities. The attacks may last from 8 to 24 hours. The fact that the muscles fail to respond to any mechanical or thermal stimulus shows that the cause of the paralysis must be something affecting the muscle fibres themselves, and not something affecting the motor nerve endings in the muscle in the same manner as does curare. Most careful investigations of the secretions and excretions of patients suffering from this disease have been made by Goodbody, Edsall, and others, and the results of their labours go to establish the fact that some toxic substance, whose nature and origin are obscure, is excreted in the urine at the time of the attack. It is thus believed that the cause of the muscular paralysis is a disturbance in the metabolism in the muscles, leading to the formation of some toxic body which inhibits those chemical changes in the muscles which are essential to their contraction.

In another disease, namely, myasthenia gravis, of which I have recently had two examples under my care, although a condition of complete paralysis of muscle does not obtain, yet there does occur a condition of muscular exhaustion readily induced, so that no response, or, at any rate, only a feeble one, is obtained on electrical or mechanical stimulation for a short time after the muscle has been thrown into activity, either by voluntary or mechanical stimulation. This disease is also believed by some neurologists and pathologists to be due to a toxin acting on the muscles. These facts suffice briefly to show that the contraction of muscles in the performance of voluntary movements can be inhibited by some local change in the muscles themselves; and, as a corollary, the muscles must be in a normal physiological condition for the performance of voluntary movements in a normal manner.

In the second place, the lower motor neurone, that is, the conducting path from the spinal cord to the muscles, must also be intact both histologically and physiologically—that is, the anterior cornual cells in the spinal cord, their axis cylinder processes, and the motor nerve endings in the muscles, must be healthy. Any one of these portions of the lower motor neurone may be defective. We know, for example, that the motor-nerve endings in muscles may be poisoned by curare, and this renders contraction of the muscle by voluntary effort impossible. A break in the axis cylinder of the nerve fibre will, of course, prevent the passage to the muscle of the nervous impulses. But, apart from an actual break in the continuity of the axis cylinder, a degeneration of the medullary sheath will impair the conduction of the voluntary stimuli. This is seen in some cases of diphtheritic paralysis where the axis cylinder may be intact, but the myelin sheath is degenerated, and yet muscular palsy results. This would seem to show that the myelin sheath is not only an insulating structure, but probably takes an active part in the conduction of the nervous impulse. Then we know, of course, that the motor nerve cells in the anterior cornua of the spinal cord must be intact; for in cases of acute anterior poliomyelitis, where there is actual destruction of some of these cells, the muscles which are innervated by the nerves coming from these cells are paralysed and ultimately atrophy.

But, further, the path or paths in the spinal cord, along which are conveyed the motor nerve impulses from the brain to the muscles, must be intact. As to the exact path along which motor nerve impulses travel, recent investigations have shown that the old idea that the pyramidal tracts are *the* motor tracts requires some modification. Some physiologists have even gone the length of saying that the function of the pyramidal tracts is a matter of doubt. There are some clinical and experimental facts which support

Digitized by Google

this view. For example, in the condition known as "Primary Lateral Sclerosis," which is a very rare disease, but yet one which Erb is confident does exist as a clinical and pathological entity, we have a primary degeneration of the pyramidal tracts. Yet we do not get a condition of muscular paralysis so much as one of muscular rigidity and spasm in the muscles of the lower extremities. So, too, in cases of hemiplegia due, *e.g.*, to hæmorrhage into the internal capsule and destruction of the motor path there, we do not get absolute paralysis of all the muscles of the one side of the body; and we know, further, that a considerable degree of motor power is recovered in many cases in which post-mortem there is found a more or less complete degeneration of the pyramidal tract on the side of the paralysis. I am aware, of course, that other explanations may be offered of the recovery of muscular power in these cases, or, rather, of the apparent retention of muscular power in the face of a degeneration of the pyramidal tracts. But some experimental evidence is also available. Starlinger has shown that bilateral division of the pyramidal tracts in the medulla oblongata did not lead to any lasting interference with movements in the dog, whereas the usual paralysis followed a lesion of the motor area of the cortex in the same animal. Redlich obtained like results in experiments on the cat, and these observers conclude that some fibres other than those embodied in the pyramidal tracts in the medulla oblongata must serve as channels of conduction of motor nerve impulses.

Further experimental evidence has shown that the older view that the pyramidal fibres terminate in the anterior cornua of the spinal cord is erroneous. The exact termination of the fibres of the pyramidal tracts in the cord had not been determined, but it was assumed as a matter of course that they arboresced around the large motor cells of the anterior cornua. Schäfer has performed hemi-section of the spinal cord in monkeys, and subsequently examined sections of the cord stained with Marchi's fluid. He has found definitely that the terminations of the pyramidal tract fibres arboresce around the cells at the root of the posterior horns, and specially round the group of nerve cells known as Clark's column, which give origin to the ascending direct cerebellar tract. No direct connection could be traced between the pyramidal fibres and the anterior cornual cells. The significance of this fact will be referred to later on. On examining other cords from animals experimented on in the same way, Schäfer has found that the degenerated fibres which can be traced to end amidst the anterior cornual cells are descending fibres in the antero-lateral region of the cord, which were believed by Marchi to be derived from the cerebellum, but which Ferrier and Turner, and Risien Russell proved conclusively to be derived from Deiter's nucleus, a large group of nerve cells which lies in close proximity to the nuclei of the seventh and eighth cranial nerves, and is also closely connected with the cerebellum. It would appear most probable, therefore, that along this tract of fibres some nervous impulses concerned with the performance of muscular movements must travel.

Finally, the large pyramidal cells in the cortex of the so-called "motor areas" of the brain, their axis cylinders, and the tract of fibres thus constituted in its course to the lower portions of the brain stem must be intact for the normal performance of voluntary movements. So much for the efferent or motor path; and we know that loss of power of performing voluntary movements in a normal manner may result from a break in any part of this path.

But a little consideration will show that this does not by any means exhaust all the conditions which are requisite for the due performance of voluntary movements; for it is obvious that for the accomplishment of any voluntary act the mere existence of an intact efferent path for the conveyance of motor nerve impulses from the brain to the muscles is very far from meeting all the necessities of the case. Suppose, for example, we wish to bring the hand to the mouth, it is necessary first of all that we should know the position of the arm and hand in space and in relation to the rest of the body; in other words, the muscular sense or sense of posture must be intact. The muscular sense is a cortical judgment determined by a co-ordination of afferent impressions from skin, muscles, ligaments, joints and bones, which travel along the sensory nerves and posterior nerve roots, and so by the sensory tracts in the spinal cord to the sensory receptive mechanisms in the brain. We must also be made conscious of the condition of the muscles concerned in the movement suggested as to their degree of contraction or relaxation. This knowledge is probably derived from impressions received from the muscle sensory organs, viz., the muscle spindles. These organs are also connected with the spinal afferent sensory tracts. It is clear, then, that these two sensory impressions must be received—that is, the position of the hand and arm in space, and the condition of the muscles of the arm as to contraction or relaxation—before we can know exactly what muscles are necessary for the accomplishment of this movement, and also what degree of nerve energy is necessary to secure that amount of muscular contraction

Digitized by Google

essential for the movement intended. We must suppose that the varying degrees of muscular energy which are essential for the performance of any voluntary act are determined by variations in the amount of nerve energy transmitted to the muscles, which determines the varying amount of chemical and electrical changes in the muscles, resulting in their contractions. And the variation in the amount of nerve energy is probably dependent upon the amount of stimulus received by the motor nerve cell from the sensory nerve cell.

We have both experimental and clinical evidence in support of these statements. Several years ago Professor Sherrington showed that after division of all the posterior nerve roots going to a limb of an animal such as a monkey there was a condition of complete motor paralysis, a paralysis as complete as if all the anterior nerve roots had been divided. This fact has been well established, and when first announced at the Neurological Society in London it gave rise to an animated discussion as to the exact explanation of the phenomenon. With all the posterior nerve roots divided it is obvious that there must be a condition of complete anæsthesia of all the structures of the limb, and if a motor paralysis results from this it seems reasonable to infer that the retention of afferent sensory impressions is necessary for the performance of voluntary movements. Then if we take the conditions present in a case of tabes dorsalis, we find that there is a defect in the paths for the transmission of peripheral sensory impressions, owing to the degeneration of the sensory neurones, and we have a corresponding difficulty in the performance of voluntary movements. We know how these movements become almost impossible in some advanced cases; and even though the patient tries to make up for his peripheral sensory loss by keeping his eyes fixed on the limb to be moved, it is yet impossible for him to move it in anything like a normal fashion, or accomplish the act desired. It would seem pretty certain that in these cases also the loss of power of performing a voluntary act is due to the loss of peripheral sensory impressions.

Then there is necessary also a considerable degree of co-ordination of the nervous impulses which are concerned in the accomplishment of any movement. Thus some groups of muscles require to be thrown into strong contraction, others require to be moderately contracted; others, again, must he relaxed to some extent at any rate. But it is an important fact in this connection to bear in mind that the contraction of any one muscle, or group of muscles, is always accompanied by a contraction in the muscles with opposing actions. This can sometimes be seen in an hemiplegic limb, where an attempt to perform a movement which is impossible in consequence of the paralysis of the muscles is seen to result in a slight contraction of the muscles with opposing actions, and the opposite movement to that intended may be accomplised in a small degree. This contraction of muscles with opposing actions is essential for the support of the limb or part of the body concerned in the movement, and to enable the muscles to contract with the best advantage mechanically.

It seems pretty clear from the work of Horsley, Schäfer, Beevor and others that muscular movements, and not individual muscles, are represented in the cerebral cortex. Hence when we decide to perform some voluntary movement, in some way or other a certain part of the cerebral cortex is stimulated, and that excitation results in the contraction of certain groups of muscles which are all concerned in the performance of that particular movement. This means that the large nerve cells in the anterior horns of the spinal cord which send their axis cylinders to these muscles must be simultaneously excited and their activity co-ordinated by the action of the cortical nerve cells. Ferrier and Yeo have advanced the theory that muscular movements and not individual muscles are also represented in the spinal cord; but however far this may be true, we know that the groups of large nerve cells in the anterior horns of the spinal cord are connected with definite groups of muscles, but not necessarily apparently with muscles having any particular actions in common; for in acute anterior poliomyelitis, for example, where we have a random destruction of nerve cells, we find a corresponding random affection of muscles. Thus we may have one adductor muscle of a limb affected and not the others. Whatever degree of representation of muscles there may be in the spinal cord, it is quite certain that in the performance of any voluntary act there must be some co-ordination effected in the passage of the nervous impulses from the cerebral cortex down the spinal cord and peripheral nerves. We must suppose that whenever a so-called "motor area" is thrown into activity, as, *e.g.*, the area which controls the movement of extension of the forearm, certain nerve cells in the anterior horn of the cord which innervate the particular muscles concerned in that movement are brought into simultaneous activity, but it cannot be by a direct transference of nerve energy; that is, there must be some sort of making of connections of nerve processes of the cells, just as connections are made in a

Digitized by Google

telephone exchange; the nerve impulses must determine the contraction of some muscles and the relaxation of others, and these two actions must be in some way or other carefully adjusted. The reception of the sensory impressions previously referred to is entirely subconscious, and the co-ordination of the muscular contractions appears to be largely a reflex action determined by the revival in consciousness off sensory impressions.

If now we attempt to follow in our imagination the nervous impulses which start from the cerebral cortex during the performance of a voluntary movement, we shall find them travelling down through the internal capsule, crus, pons and medulla. One part will pass along the pyramidal tract and reach the nerve cells at the root of the posterior horn, and the cells of Clark's column. The latter cells give rise to the direct cerebellar tract which ascends to the cerebellum, and it would appear that by this means the cerebellum is brought into play in the performance of the movement. Another part of the impulse will travel by way of Deiter's nucleus, and descend in the antero-lateral region of the cord, and directly influence the large anterior motor cells in anterior horn. I do not presume to say that this is the complete explanation of the process, and it would be futile to dogmatise on this point. I only mention these facts, one can draw one's own inferences from the anatomical and physiological facts; but we can be certain of this, that in the performance of a voluntary movement there must be a complex process of adjustment of motor, sensory and inhibitory impulses.

You will see, then, that for the performance of a voluntary movement it is necessary to have an intact afferent sensory tract, an efferent motor tract, and an intact cerebral cortical area; and we are brought face to face with this important question: "Are voluntary movements, then, in reality 'reflex actions,' and are the so-called 'motor areas' of the cortex 'reflex centres?'"

Before we can answer these questions we must consider the nature of reflex action in general, and also the views of different observers as to the nature of these areas. You are familiar with the experiment with the decapitated frog. If such an animal be suspended, and a drop of an irritant acid be placed on the skin of the abdomen, the leg will be drawn up and the foot carefully directed so as to remove, if possible, the offending object. If one leg be held down, then the other leg will be drawn up in a similar manner. Now in this experiment, where all connections with a higher nerve centre has been cut off, it is obvious that this carefully adjusted movement must be a purely reflex action; and yet how purposive does it appear to be! The afferent sensory stimulus must arouse in the spinal cord efferent motor impulses, which determine the application of the foot to the exact spot irritated. In other words, in the spinal cord of the frog there must be all the mechanism essential for co-ordination and adjustment of muscular movements, and this can be brought into activity quite independently of any "volition" on the part of the animal. This may be taken as a type of a pure reflex action; and from various experiments it would appear that in the lower animals the spinal cord is a much more important reflex centre than in the man.

As a type of a somewhat more complex condition of reflex action we may take the phenomenon of micturition. Here we find that reflex action plays an important part in the function; the bladder fills and empties itself by reflex action; but this can be inhibited or intensified by motor nerve impulses descending from the cerebral cortex. In other words, we have here a condition of reflex action which is habitually controlled in a normal person by the higher cerebral centres; and when as a result of disease this higher influence is cut off, then the bladder fills and empties itself by pure reflex action. This shows that simple reflex actions can be inhibited and controlled by the activity of the cerebral cortex.

Now, let us consider for a moment the nature of the so-called motor areas of the Rolandic region of the cerebral cortex. A large amount of experimentation and theorising has been expended on the solution of this question. In the main, two opposing views have been advocated by Ferrier and Bastian respectively. Each view has some amount of pathological and experimental evidence in its favour, but the balance of evidence seems to be accumulating in favour of the views long advocated by Bastian. The view of Ferrier is indicated by the term "motor area," that is, it is a part of the cortex whose function is purely motor, and whose activity results simply in the accomplishment of motor acts. Bastian, however, on the other hand, calls these areas "kinæsthetic centres," and considers that they are centres in which various sensory impressions from the periphery are registered, particularly the muscular sense, and impressions from bones, joints, and skin Bastian, in an article on "Brain," vol. xv., 1892, summarises his views in these words:—"The plan on which nervous centres generally are constructed, of whatsoever grade, makes it essential that the stimulus which awakens the activity of a 'motor' ganglion or centre shall

Digitized by Google

come to it through connecting fibres from a 'sensory' ganglion centre or knot of cells, that is, from cells which stand in immediate relation with ingoing fibres. Thus, we should not call a cortical centre for afferent impressions 'motor' any more than we should call the group of ganglion cells on the afferent side of a spinal reflex arc 'motor.' In each case the nerve cells that receive the afferent impulses are in association with channels which convey 'motor' impulses; and in each case the stimulation of such internuncial fibres, or of the centres from which they proceed, would give birth to definite movements. The course of these internuncial fibres is for the most part horizontal in the spinal cord, though more rarely it may be an ascending one, but from the kinæsthetic centres in the brain the course of the internuncial fibres is downwards in the pyramidal tract; hence the current is commonly spoken of truly enough as an outgoing one, but with the effect apparently of fostering some confusion in the minds of not a few." According to Bastian's view, then, these areas in the Rolandic region of the brain are not purely and simply the originators of motor impulses, but are centres roused into activity by impressions of various kinds streaming in from the periphery. But such impressions having been registered in the past in the cortex, it is the revival in consciousness of these impressions that determine the outflow of the current from the kinæsthetic centres to the motor centres in the basal portions of the brain and of the spinal cord. Whichever view we may adopt, it is clear that these Rolandic areas are in intimate relation with the efferent tract of fibres, which becomes the pyramidal tract; and it is apparent from what has already been said that we have really a reflex arc, the afferent sensory and efferent motor tracts, and the cortical nerve cells in the "motor" areas, and that a normal physiological condition of all these parts of the arc is essential for the normal performance of voluntary movement. Sensory impressions of various kinds must be continually streaming in from the periphery, and these impressions reaching the spinal and cerebral centres will spread to the motor nerve cells and tend to produce muscular movements co-ordinated and adjusted to meet these special sensory impressions, unless they are inhibited by the higher cerebral centres. In other words, "inhibition" appears to be the highest, shall I say "physical," attribute of the cerebral cortex. This, after all, is only another way of saying that we prevent these reflex movements by our "will power." When that inhibition or will power is withdrawn from the lower centres, then we see a variety of conditions as regards muscular movements manifested. The exact character of these uncontrolled motor impulses will depend upon other conditions in the lower parts of the brain and spinal cord. Perhaps in no other condition do we see so well exemplified the truth of the thesis I have been endeavouring to work out than in that morbid condition commonly known as "hysteria." Here we see all sorts of uncontrolled movements, spasms, rigidities and paralyses, which may occur in various combinations, all independent of any gross lesion of the brain or spinal cord, and all dependent upon a loss of that inhibition or control of the lower reflex centres by the higher cerebral cortex.

In conclusion, I would suggest that we must regard so-called voluntary movements as really reflex actions, inhibited and controlled by the cerebral cortex in the discharge of its highest function, these reflex actions probably taking place at different levels of the spinal cord and brain. That whereas loss of power of performing muscular movements may result from an organic lesion in either the afferent or efferent tracts or reflex centres, it may also result in cases where there is no organic lesion, no organic break in the reflex arc, but only a functional defect either in the conduction of the nervous impulses along the tracts, or in the activity of the cerebral cortex.

THE CAUSES AND PREVENTION OF DEATH FROM CHLOROFORM.

By W. B. Vance, M.B., Hon. Anæsthetist, Alfred Hospital, Melbourne.

CONTROVERSY has long raged between the physiologist and clinician as to the causes of death from chloroform. The Hyderabad Commission obtained results so different from those recognised in everyday life that the dispute, instead of being settled, only waged the fiercer. Thanks, however, to Embley's (1) series of painstaking experiments, we have at last reached a stage in which the physiological and clinical evidence practically agree. It must be remembered that however carefully and accurately experiments in the lower animals may be carried out, still there is something wanting. In man, in addition to the mental factor which in some cases, especially in the early stages, plays an important part, we must not forget the further fact that man is only chloroformed for an operation rendered necessary by some disease. The pain, exhaustion, and worry of his condition has therefore an additional debilitating influence of his central and muscular systems; hence conditions not present in the lower animals are apt to complicate the action of the drug.

Digitized by Google

The risk of a fatal termination is much greater in the early stages of the administration, *i.e.*, before the patient is completely anæsthetised, than in the late. The causes of death from chloroform can be ascribed as being due to:—

1. *Asphyxia.*—This may be caused by some mechanical means such as regurgitation of vomited matter, obstruction due to the tongue falling back, to the presence of some foreign body, mucus, or growth blocking the air passages, or to impaired respiratory movements. It may occur as frequently in the early stages as in the late.

2. *Respiratory Failure.*—Whether this be due to primary respiratory paralysis, as urged by the Hyderabad Commission, Hare and Thornton (2) and others, or only secondary to, and the result of, the lowering of the blood pressure, as pointed out by Gaskell and Shore (3), MacWilliam (4), Embley (5), Committee of the B.M.A. (6), is a matter which has long been debated. My own clinical experience goes to prove that respiratory failure is the result of failing circulation. The alteration in the colour of the patient, the weakened and either greatly quickened or slowed pulse, the alteration in the capillary circulation and in the tension of the eyeball, which are noticed in these cases, are all due to a failing circulation. One or more of these symptoms will be always manifested before we find respiration affected. Sometimes quite an interval will elapse; at others the two sets of changes—cardiac and respiratory—occur almost simultaneously. Respiratory failure is met with about equally as frequently in the early as in the late stages of administration.

In the early stages of administration, however, the heart ceases before respiration, while in the late respiration stops before the heart; hence the much greater danger and less chance of recovery from this condition in the early stages of the administration.

3. *Heart Failure.*—This is now acknowledged to be one of the causes of death from chloroform. It is most usually met with in the early stages, but may occur in the late. It is most probably caused by a combination of one or more of the following conditions:—(*a*) We have the inhibitory action of the vagus on a heart itself depressed by the action of the chloroform. (*b*) The heart itself is frequently found post-mortem in these cases to have more or less degenerate and friable walls, this being the cause of the acute dilatation seen sometimes in these cases; *vide* Mollison (7), Brett (8). (*c*) The organ may be further exhausted by struggling during the administration. (*d*) Vascular dilatation allowing the blood to collect in the larger vesels and more dependent parts of the body; hence increasing the amount of work necessary to be done by the heart to keep up the circulation. (*e*) Deficient aëration of the blood. This greatly increases the irritability of the vagus. It may have so exciting an influence on the vagus that even in the late stages of administration when normally the inhibitory action of the vagus is practically abolished as to again call it into action. (*f*) Vomiting. The extra depression due to this condition has been known in the late stages to bring on a fatal syncope when associated with a feeble heart.

That the symptoms of heart failure are much less pronounced in the late stages is due partly to the abolition of vagus inhibition, and partly to the fact that when the patient is once under much less chloroform is given. As the percentage of vapour in the blood only rises very gradually, the risk of an overdose is much lessened; hence when we do get symptoms of heart failure as the urgent ones in the late stages, it usually is due to either grave faults in administration or else to the operation.

Certain conditions again predispose to heart failure:—(*a*) Previous administration. Chloroform has a poisonous action on the heart. Should the patient have been anæsthetised a few days before, such grave changes may have been caused as on a fresh administration to lead to a failure. Schmidt found in dogs that even after a single narcosis of three-quarter hour duration, the cardiac ganglia showed distinct degenerative changes. Further, this action is cumulative, so that repeated narcoses at intervals of one or several days caused greater damage to the ganglia than a single prolonged narcosis. (*b*) Fear and anxiety. These conditions cause profound circulatory disturbances, and thus have a tendency to predispose to danger. Similar views were held by Ballard (9). (*c*) Degenerative change in the heart's muscle, due to disease or other conditions.

4. *Due to the Operation.*—Death may be brought about in this case either by shock, hæmorrhage, or injury to one of the vital centres.

5. *Spasm of the Laryngeal and other Respiratory Muscles.*—This is most frequently met with in the stages just preceding complete narcosis. If seen, it usually occurs in the very muscular or broncho-asthmatic, and may be associated with some obstruction to the breathing due to other causes. Possibly it is reflex in origin, due to the irritation of an extra sensitive laryngeal or nasal mucous membrane. While usually easily overcome in those with rigid unyielding chest walls, it is a very fatal complication. Thus we find that with the

Digitized by Google

exceptions of asphyxia due to obstruction, and those due to largyngeal spasm, all the causes of death from chloroform are primarily due to the heart itself, no matter in what form they present themselves.

Experimentally it has been found by Embley and others that when the vapour of chloroform reaches as high as 2 per cent. that then serious cardiac complications result; while comparative safety as far as the anæsthetic is concerned results from a lower vapour percentage, so that all the cardiac complications are due to an overdose of the drug.

Now this over-dosage may be brought about in several ways:—(1) We have the question of personal idiosyncrasy to consider, and this can only be discovered during the actual administration. Embley and others have fixed the safe limit for chloroform at about 1½ per cent. Still, there are cases in which this may be even an overdose. In one case which came under my notice, a woman aged about 35 years, from 5 to 10 drops slowly and gradually administered were sufficient to cause symptoms of heart failure. The patient was then anæsthetised with ether. Owing to the collection of mucus during the progress of the operation, which rendered frequent clearing out necessary, a few drops of chloroform were given, and exactly the same results ensued, which cleared up again with ether. Evidently this patient was quite intolerant to chloroform.

2. Too rapid rate of administration, especially in the struggling stage, at the end of which deep breaths are apt to be taken. Chloroform is at first a nerve stimulant, but from the first is a muscular paralyser. We have thus the stimulation of the nerve centres causing increased respirations both as regards depth and rate, and at the same time the increased amount of chloroform inhaled tending to produce great muscular paralysis. Hence the great danger in this stage of a fatal termination.

3. Too concentrated a dose. This may be due to several causes:—(*a*) When we have the patient lying on his back with the head in the same straight line. The vapour instead of being dissipated has a tendency to hang like a cloud over the patient's mouth. We frequently see it stated that in obstetrical practice chloroform is absolutely safe. While this is not so, the extra safety lies in the fact that with the patient on the side the vapour falls away from the mouth. Hence an overdose is not so likely to result. That position does play a large part in the production of an overdose is proved by a series of 50 experiments undertaken by myself. Chloroform was given alternately with the head on its back, and with the head turned to the side. The average time taken to get the patient anæsthetised with the head on its back was 8¾ minutes; with the head turned on the side 11½ minutes were necessary. Again, the amount of chloroform used was just about one-third greater with the head turned to the side. Therefore, the patient inhaled a higher percentage of chloroform vapour in a given time with the head on its back. Hence the extra safety with the head turned to the side. (*b*) Weather conditions: In days in which the air is saturated with moisture we have an additional danger, the watery envelope in the air having a great tendency to prevent dispersion of the vapour. This is further assisted by the still atmosphere of the operating theatre. Patients go under more readily and take less of the drug on these days than on the bright, dry ones. Cold, especially if associated with moisture, helps to cause this state of affairs. The evaporation under these conditions being to a large extent carried out solely by the patient's breath, hence the liability to an overdose; the newly vapourised chloroform being drawn in by the succeeding inspiration before much of it has had time to escape into the surrounding atmosphere. These last views were also held by Sir Benjamin Richardson and Clover.

The Prevention of Death.—While rules and conditions are easily laid down as to the best means of administering chloroform, still these rules will not prevent accidents occurring. The safety of our patient lies in the experience, care and watchfulness of the administrator. So as, however, to lessen the risk as much as possible, it is necessary that—

1. Chloroform should only be given to those cases for which it is suitable.
2. Our patient should be properly prepared for administration.
3. That the administration be carried out in as safe a manner as possible.
4. A knowledge of the complications that arise, their earliest indications, and the best method of dealing with them should be possessed by the administrator.

Choice of the Anæsthetic.—It should be our endeavour to always choose an anæsthetic which, while allowing the surgeon to perform his operation satisfactorily, will be the least dangerous to our patient. Although starting with a decided bias against ether, after some years as honorary anæsthetist to one of the public hospitals, I have been forced to the conclusion that it can be used satisfactorily for almost all operative procedure, and is far and away the safest for our patient. There are, however, certain conditions in which chloroform is the more suitable—

1. Amongst individuals we find that in the very young, in cases of extreme obesity, and in

Digitized by Google

the aged with rigid chest walls, chloroform is the better to use.

2. In acute or sub-acute pulmonary disease, anæsthetics are extremely badly borne. The risk, however, lessens the more chronic the disorder. It should only be in cases of great urgency that a general anæsthetic is given in acute lung conditions. In cases of emphysema, chronic bronchitis with expectoration and dyspnœa, and in advanced phthisis, chloroform is the safer anæsthetic. In all laryngeal diseases, and all conditions interfering with the proper entrance and exit of air, chloroform must be used.

3. In cases of atheroma, which is usually associated with either cardiac or kidney disease, the choice of an anæsthetic should be decided not so much by the atheroma as by the co-existing disease. In atheroma with heart disease, chloroform is the safer, provided that we have not a failing heart to deal with. Valvular disease of the heart is sometimes said to be a contra-indication to anæsthetics. When, however, the heart muscle is in a fair condition, anæsthesia may be produced, providing the circumstances are such as to warrant incurring a slightly increased risk,—chloroform being probably the safer anæsthetic in these cases.

In advanced affections of the heart, pericardium, or blood vessels, in which it is desirable to avoid all unnecessary strain, chloroform should be used. Similarly, in cases of lung engorgement, with heart trouble, it is the better.

4. While the production of anæsthesia is in diseased conditions of the brain always risky, still the risk is less with chloroform than ether.

5. Two distinct dangers underlie the use of anæsthetics in kidney disease. In one case, we have the action of the drug on a diseased organ, which may be so severe as to cause the death of our patient in a few hours or days. In the other, we have to consider what action will the anæsthetic have on the secondary conditions already produced by the diseased kidney. That both ether and chloroform have a distinct deleterious action on the kidneys is proved by the works of Norris (10), Lawson Tait (11), Wood (12), and Fraenkel (13). Of the two, however, chloroform was proved by them to be the least harmful. Thus in kidney disease, without secondary complications, chloroform should be used. Where there are secondary complications, of which degeneration of the heart's muscle is the most dangerous, chloroform is not advisable. Should there be, however, a tendency to œdema of the lung, chloroform is the better.

6. In pregnancy chloroform is the better anæsthetic to use.

Oxygen and Chloroform.—A method which has been found very useful by me in cases of embarrassed breathing from all causes is the combination of oxygen and chloroform, the oxygen being delivered in a small spray beneath the mask. If necessary the frame of the mask can be made with hollow tubing, the base of it being perforated with fine holes. At one end we can have a valve which, by means of rubber tubing, can be connected with our cylinder of oxygen. By means of the valve we are thus enabled to easily regulate the intake of oxygen according as circumstances warrant. In addition to the value of the oxygen, this method has another advantage, the fine spray of the gas dissipating any accumulation of chloroform which might have a tendency to collect in the mask.

Preparation of the Patient.—Unless in cases of emergency, it is of great importance that our patient should be properly prepared for the anæsthetic. The bowels should be evacuated by a purgative the day before, and again by an enema on the morning of the operation. It is advisable that a day or two's rest in bed with light diet be, if possible, enforced. On the day of the administration six hours should have elapsed since solid food was taken before commencing. If thought necessary, however, a little clear soup without vegetables or bread may be given three hours before. To the weak or nervous, an ounce of brandy and water half an hour before administration is of advantage. Young children, who at the best stand operative procedure badly, the time of fasting must be reduced to two hours, or less if necessary. False teeth, tight bands, and all weighty clothes having been removed, the patient should be carried in the recumbent position, not allowed to walk, to the operating theatre. The routine treatment of the injection of strychnine gr. $\frac{1}{30}$ a quarter of an hour before commencing is to be recommended. It is advisable to have patients with feeble or failing hearts placed on digitalis, either hypodermically or by the mouth, a few days before. If this be not possible, the injection of $\frac{5}{10}$m. of digitalis with atropine gr. $\frac{1}{100}$ half an hour before commencing is of great value. In the very nervous and excitable, and in cases where it is advisable to have our patient anæsthetised with as little struggling as possible, the injection half an hour beforehand, unless contra-indicated, of morphia gr. $\frac{1}{4}$ and atropine gr. $\frac{1}{100}$ can be highly recommended. It is necessary, however, to remember that our patient has had this injection, as it modifies the usual

Digitized by Google

phenomenon observed to a very considerable extent. It has been recommended by Embley and Schaefer that atropine gr. $\frac{1}{100}$ should be injected in all cases. While, no doubt, atropine has a powerful influence in abolishing the inhibitory action of the vagus on the heart, still it has the objection that it often causes excitement, usually only, however, of the noisy kind, but which our patient is better without.

Where we have vomiting, such as in cases of intestinal obstruction and strangulated hernia, it is always advisable to have the stomach washed out beforehand. Not only does this lessen the risk of vomited material getting into the trachea, but at the same time it removes a quantity of fluid and gas which may be impeding the action of the heart.

In cases of ascites it is advisable to have the abdomen tapped some few hours before if the ascites be at all great. If abdominal support be necessary after the removal of the fluid, a binder will give us all the support needed.

A careful examination of the heart both by palpation and by the stethoscope should be made in all cases. Turnbull pointed out that where death occurred in cases which could not easily be explained, the urine was found to be loaded with urea; while Wood (14), in experiments on dogs in which nephritis was artificially produced by the action of cantharides, showed that in uræmia and uræmic conditions the respiratory centres were very susceptible to the action of chloroform. Hence a complete analysis of the urine should be made in all cases. Before commencing, the administrator should notice carefully the condition of the pulse, pupils, respiration, colour of the face and skin, etc., as it is of importance for him to note as the case progresses how these change from normal. A gag, tongue forceps, sponges, tracheotomy instruments, and all the various restorative remedies should be ready and at hand.

Administration.—Chloroform is best administered in a well-ventilated room at the temperature of about 70° F. The patient should lie in the recumbent position, with a pillow under the head, so as to keep it on a level with the shoulders. The head should be turned to one side, and the jaw held up and forward with the left hand. The mask is also held in the left hand, and should be so placed that at least one finger is in such a position as to feel each expiration of the breath. By so doing not only will we see the working of the chest, but at the same time will feel the breathing, and thus know that air is actually entering and leaving the chest.

The ordinary triangular wire mask covered with flannel is, perhaps, the best to use. If covered with lint the evaporation of the chloroform does not proceed so readily. The mask should not be so large as to obscure the face, which is a common fault with many. A number of inhalers have been invented by means of which we are supposed to know the exact quantity of choloroform our patient is getting. In practice, however, they have been found as satisfactory as one would desire. One inhaler which should be absolutely condemned is that known as the modified Junker. This is the usual Junker, only in place of the face-piece a bent tube or catheter is used for introduction into the nose or throat. Owing to this arrangement, almost pure chloroform vapour can be introduced, and unless the greatest care be exercised an overdose is rendered very easy. If this apparatus be used at all, as far as possible the introduction of the chloroform should only take place at the commencement of expiration, as by so doing a certain amount of vapour will be forced out before the succeeding inspiration. The mask being held a few inches above the face, chloroform should be dropped on from a stoppered bottle, so made as to drop regularly, and give drops of one size. The proper rate should not be more than one or two drops for each inspiration. The drops should be equally distributed over the upper surface of the mask, and not placed all in one spot. As anæsthesia progresses the mask can be gradually brought closer to the face, taking care that our patient is getting plenty of air. The character of the breathing must be watched, and the supply of chloroform regulated from time to time by its depth and rate. If struggling ensues, the mask must be removed from the face, and the patient allowed to breathe naturally for a short time. Then the administration can be gradually and cautiously resumed.

Coughing during the administration is a warning that the vapour is too strong, and must be diluted accordingly. Holding the breath is again frequently due to too strong vapour. The vapour must be diluted, and if necessary up and down movements of the jaw made. This will be usually sufficient to restart breathing. Sometimes considerable amount of difficulty will be experienced in getting a satisfactory current of air in and out of the mouth. This is very apt to occur in those patients with over-riding teeth. It may be necessary to hold the mouth open either with our fingers or a gag. The tongue in addition may require pulling forward. Once our patient is surgically under, the mask should be removed from the face from time to time—

Digitized by Google

the patient being allowed to breath the air. The best condition of anæsthesia to keep the patient in is just to have the conjunctival reflexes abolished.

During the whole administration the anæsthetist must give his undivided attention to what he is doing. He should at once notice any alteration in the pupils, colour of face or skin, respiration and pulse. Alteration in one or more of these will be the earliest indication of danger. Thus, he must be quick to recognise what is going wrong, and prompt to act. Here comes in the value of experience. When chloroform is given in stuffy, ill-ventilated rooms, lighted by means of artificial light, of which kerosene is the worst, we are apt to get unpleasant effects from the decomposition of the vapour by the light. This may affect both the patient and the administrator; vomiting, headache and syncope being the usual symptoms which arise from this cause.

Indications of Danger.—The Pupils.—When our patient is surgically under, the pupils should be in a state of moderate contraction. The pupils dilate under two conditions—(*a*) Operating when the patient is not properly under; (*b*) as the result of commencing overdose. Thus, should the pupils dilate, the administrator should know whether to give more chloroform or stop it altogether. A minutely contracted pupil is sometimes met with. Usually, but not always, this means a very light anæsthesia. Occasionally the pupils remain dilated, never having contracted, although the patient is surgically under. Personally, in this class of case, I much prefer to give ether, if at all possible.

Pallor.—This, if we remember the fact that some people naturally or as the result of disease have a very pale colour, and that, on the other hand, even the dead may for a time retain their colour, is a very important sign. During the operation a pallid face may be due to (*a*) shock or loss of blood from the operation, (*b*) threatened vomiting, (*c*) a failing circulation. The colour of the lips is a good guide, as they frequently show alteration before other danger signs manifest themselves. A good general rule is, on pallor manifesting itself, to at once change the anæsthetic to ether.

Respiration.—May become shallow and slow just before vomiting. On the other hand, it may be an indication of impending respiratory failure.

Sweating.—This, which is usually of the cold clammy character, is an indication that the patient is either feeling the effect of the operation severely, or else that the chloroform is having a very depressing influence.

Pulse.—Cannot be depended on as a guide in the early stages of chloroform narcosis. If it has been rapid at first, as the patient passes under the influence of the anæsthetic it usually gets slower, due in a large measure to the nervous excitability of the patient having been abolished. During the operation the pulse should retain a fair volume and rate. Rapid or very slow pulses, especially if associated with other danger indications, are a very bad sign. It must not be forgotten that at first, as the blood pressure falls, the heart beats the more vigorously in an endeavour to maintain the circulation; hence what may seem a good pulse is really due to an attempt on the part of the heart to maintain the blood pressure. The best index of the condition of the blood pressure can be obtained from the capillary circulation. This can be tested by pressing on the lips or gums, then releasing the pressure, and noticing how long it takes for the colour to return. The sooner it returns the better the blood pressure, and *vice versa*.

Struggling.—This usually occurs when inducing anæsthesia, and has several bad results: (*a*) After struggling, the patient takes as a rule several deep breaths in succession; hence the danger of an overdose. (*b*) When the arteries are in a condition of atheroma this state has been known to bring on a cerebral hæmorrhage. (*c*) The great muscular exertion exhibited by the patients in this condition cannot but have an exhausting influence on the heart, which will be especially marked if its muscle be at all degenerate. The restraint necessary in these cases should just be sufficient to prevent the patient hurting himself. As a rule it is better to guide the movement of his limbs into a safe channel rather than to restrain them.

Cyanosis.—Simple cyanosis points to some interference with respiration, while the circulation is but little deranged. Hence it is common when the air supply is restricted, such as is due to the falling back of the tongue, collection of mucus in the throat, or due to inadequate respiratory movements. The blood from the cut surfaces will show the dark colour of imperfect aëration before much change is noticed in the face. The great danger from this condition arises from the fact that imperfect aëration of the blood greatly increases the vagus excitability.

Lessened Tension of the Eyeball.—This condition can be distinctly made out by feel when the circulation is failing. In some cases the sensation of the altered tension may be the first indication of danger.

Vomiting occurs either before the patient is under or else when coming out of the anæsthetic. The regurgitation of fluid which takes place in cases of intestinal obstruction, while more dangerous, cannot be called vomiting. Should

Digitized by Google

vomiting or regurgitation of fluid take place care must be taken to keep the head on the side, and preferably slightly lower than the body. As it is impossible to keep the jaw pulled up for fear of allowing the vomited fluid to enter through the open glottis into the trachea, the patient will require careful watching that asphyxia does not come on. Should it do so it will require appropriate treatment at once.

Lehman's Sign.—Lehman (20) speaks of what he calls his danger signal in chloroform. He says that if the patient keeps his eyes wide open, or partially open, during the narcosis, and opens them again whenever the surgeon closes them, some difficulty, either slight or serious, may be expected. He noticed this phenomenon in 21 out of 329 cases. In each was there some serious complication. According to my experience, this is by no means an infallible sign. This may be due, perhaps, to the fact that on the earliest indication of danger I at once change the anæsthetic, and thus usually prevent further symptoms of danger arising.

Other Signs.—There are many other minor signs, such as alteration in expression of the face, movements of alæ nasi, yawning, alteration in character and frequency of the breathing, stagnation of the blood in dependent parts—such as the alæ of the ear or the cheek. All these signs convey a distinct meaning to the anæsthetist that there is some change taking place in the patient's condition which will require watching.

POSITIONS AS A SOURCE OF DANGER.

Trendelenburg's Position.—The objections to this position are:—(*a*) We may get an overloaded condition of the right heart. (*b*) The tongue, especially in the short necked, is apt to get at the back of the throat and interfere with respiration. (*c*) In the atheromatous there is the risk of cerebral hæmorrhage.

Sims' Position.—With the exception that an undue amount of pressure is easily produced on the chest, and thus obstruct the proper entrance and exit of air, the position is one of the safest. The undue pressure can be avoided by getting an assistant to hold up the shoulder.

Raised Positions of the Head.—Such as met with in operations for cleft palate, extraction of teeth, operations in the tongue, etc. This is an extremely dangerous position, and should in all cases if possible be avoided. If this be impossible, the head must never be raised higher than is absolutely necessary. If the head be raised the patient should never be absolutely under. Just sufficient reflex should be left to allow the power of swallowing any blood of fluid which may trickle down the throat. If care be taken to keep the patient in this condition he will neither feel, struggle, nor interfere with the operator, while the risk of suffocation or other bad symptom arising will be lessened. Chloroform should be avoided in this position if at all possible. Ether can in the large majority of cases be satisfactorily used.

Dangers associated with Operations: Rectal Operations.—In the dilatation of the sphincter ani necessary in these operations we are apt to get a dangerous laryngeal spasm. Chloroform should never be given in these operations if possible to avoid it. If this be not possible, the patient should be deeply anæsthetised, then just before the dilatation commences he should be allowed several breaths of pure air. Herbert Allingham regards chloroform in rectal surgery as extremely dangerous. A similar condition, but in a modified degree, is met with if we use the clamp in circumcisions.

Hernia and Appendicitis.—In the radical cure for these cases I have noticed that they are more liable to show signs of heart failure than is usually met with in the average abdominal operation. The trouble is due to the operation, as on the return of the bowel to the abdomen all bad symptoms subside.

Uterine.—In dilatation of the os uteri symptoms analogous to those met with in dilatation of the sphincter ani may be produced. Deep anæsthesia is necessary in these operations, unless it be simply removing a retained placenta or ovum where light anæsthesia is a decided advantage.

Post Nasals.—In this operation, which is practically painless, the patient should be just sufficiently under to prevent him struggling so much as to interfere with the operator. It is a decided advantage to keep the head low.

Cerebral.—The patient should be just sufficiently anæsthetised to allow the operation to proceed.

Other Operations.—In many other operations we may get, particularly in the strong, cardiac reflexes, which are apt to cause circulatory depression. This usually occurs when our patients are not completely under. Such operations as reduction of dislocations, division of nerves, breaking down adhesions, internal urethrotomy and eye operations are sometimes attended with this danger. As a general rule these reflexes are absent in young children and in the old. As these reflexes are not met with under ether, it should be used as far as possible in all these cases.

Treatment of Danger Signals.—As dangerous symptoms arise appropriate means must be at once taken to counteract them. The action necessary depends, of course, on the source from which danger is threatened. If it be only a case of simple cyanosis, due to some obstruction in the throat, it will be sufficient

Digitized by Google

to adopt the following: See that the tongue is well held up; clean out the back of the throat with sponges; run your finger down to the epiglottis to be sure all is clear; hold the jaw well up and forward. If, however, due to some actual obstruction in the trachea or larynx, it may be necessary to perform a tracheotomy. Should the symptoms point to threatened cardiac failure it is advisable to at once change the anæsthetic. The preference should be given to ether. If this does not do, A.C.E. mixture can be tried. This mixture must never be given, however, in a closed inhaler. At the same time the brisk friction of the face with a towel will sometimes re-stimulate the failing circulation.

If recognised early, these precautions will, as a rule, avoid the necessity for further action. Should, however, the symptoms continue, more energetic means must be adopted at once. The chest can be slapped with a wet towel, or ether can be poured on to get the effect of cold. These remedies are, however, poor compared with artificial respiration. This must be commenced at once, no matter whether the respiration or heart be at fault. It is the most valuable means of restoring cases of chloroform poisoning. The value of artificial respiration lies, in a great measure, in its effect as a mechanical cardiac stimulant and restorer of blood pressure. If it is to be effectual, it must be so done that compression is made on the chest. The results of artificial respiration in the operating theatre and laboratory are widely different; the poor results obtained in the theatre being due, as a rule, to the very different manner in which it is carried out. In the laboratory, on the other hand, the means adopted are of the best. This has been so long recognised that John Hunter invented an apparatus for carrying it out in man. Fell, of Buffalo, America, has also a valuable but complicated one. A simple yet efficacious means of performing forced respiration, as it is called, has been recommended by Wood, of the University of Pennsylvania. It simply consists of a pair of bellows, two intubation tubes, and some rubber tubing. In using this apparatus it is advisable that compression be made at regular intervals on the chest. Should the indications point rather to heart failure (in addition to artificial respiration) the body should be laid at an angle of 45 degrees, with the head downwards; the best results being probably obtained by alternately raising and lowering the legs.

Wood (15) pointed out that the good results due to inversion of the body arose from the increased intra-cardiac pressure, which in some cases is sufficient to re-stimulate the heart. In other cases, however, this method absolutely fails. It should, however, be always given a trial.

Prus's method of cardiac massage, which has successfully restored dogs, has been tried by Freyberger (16), with the result that the patient lived for three hours. If all other measures fail it is worth a trial. Galvanism has been resorted to. No good results, however, have followed its use. The commonest drugs which are used in threatened death are ether, alcohol, ammonia, amyl nitrite, digitalis, atropine, strychnine, caffein, etc.

Ether.—Hypodermically it may possibly be of some value as a cardiac stimulant in chloroform poisoning. I have never seen, however, any good results follow its use, therefore cannot recommend it. *Alcohol:* When we remember that alcoholics are bad subjects for anæsthetics requiring a large amount of chloroform, and go under very suddenly, it seems rather a contra-indication to give alcohol to stimulate a heart depressed by the anæsthetic. Dubois (17) found that animals to whom alcohol had been freely given required much less chloroform to anæsthetise and kill than those none had been given to, *i.e.*, alcohol intensified the action of chloroform, and lessened the fatal dose. These experiments were subsequently confirmed by Wood (15). For these reasons alcohol cannot be recommended for threatened heart failure due to chloroform. It may be of use in the failure due to loss of blood. As a general rule, however, you will find that saline transfusion and ether will give better results in this condition. *Ammonia:* Very uncertain in its action; of great benefit in some cases, and fails utterly in others. It is well, however, to give it a trial; from 20-30m. of the liq. ammonia being injected hypodermically. *Digitalis:* Of undoubted value. It causes a persistent gradual rise in arterial pressure, with an increase in the size of the individual pulse beat. *Amyl Nitrite:* Although this drug bears the best of recommendations, never have I seen the slightest benefit follow its use. Owing to its volatility, unless the mouth and nose be more or less covered by a towel or other means, it all escapes into the air. Should the towel be used we are impeding the free entrance of air, which is of the most extreme value. Wood (15) found he could get no rise of arterial pressure, and only occasionally an increase in pulse wave in his experiments. These experiments have subsequently been confirmed by other investigators. Dudley Buxton (18) writes amyl nitrite not a true physiological antagonist to chloroform, for it lowers the blood pressure by either paralysing the muscular coats of the vessels or of the

Digitized by Google

vaso-motor ganglia controlling them. Further, it depresses the heart and respiratory centre. If these views are correct, it is nothing more or less than suicidal to use amyl nitrite. *Strychnine:* This is probably the most valuable of all drugs. Not only is the arterial pressure increased by its use, but the respirations become increased in depth and rate. To get the full benefit of the drug, it must be used, however, in large doses. It is advisable to start with gr. $\frac{1}{20}$, followed if necessary in a short time by another gr. $\frac{1}{10}$. I have used as much as gr. $\frac{1}{4}$ during the course of a long operation without any bad effects. It must be remembered that children are much more susceptible to its physiological action than adults. Accordingly the dose must be much smaller than the usual proportional dose. *Atropine:* Valuable especially in the early stages where we have the vagus inhibition acting, about gr. $\frac{1}{80}$ should be given. *Extract of Supra Renal Capsule:* Mankowski (19) found that a 1 per cent. solution stimulated the heart, respiration, and maintained the blood pressure in his experiments on dogs. He recommends a trial in case of chloroform poisoning.

Dangers from After Effects.—Patients should not be left in unskilled hands till some hours after the administration has ceased. Not only is there the danger of suffocation from vomiting which is usually present, but cases of fatal syncope have been known to occur as long as two hours after the administration ceased. A case of fatal syncope came under my knowledge three-quarters of an hour after the stoppage of the administration. The patient, who was hysterical and rather weak, had her bladder examined for stone under chloroform. She came out of the anæsthetic, but when trying to sit up, however, three-quarters of an hour after, she suddenly died. She was only about 15 minutes under the influence of the drug.

Such, then, are the deductions drawn from my experience as an anæsthetist. Briefly summed up, the percentage of fatal cases can be much reduced if chloroform were only given to suitable cases, and not as a matter of routine; and, further, if the earliest indications of danger were at once recognised and appropriate treatment adopted. This is, however, a matter of experience and watchfulness on the part of the administrator, which simply means the more experienced the chloroformist the safer it is for our patients.

REFERENCES.

(1), B.M.J., April, 1902; (2), Lancet, p. 997, 1892; (3), B.M.J., 1896; (4), B.M.J., 1890; (5), B.M.J., 1902; (6), Lancet, Jan. 26th, 1901; (7), Intercolonial Med. Jour., 1897; (8), P.M. Notes, Alfred Hospital; (9), Lancet, May 7th, 1898; (10), American Ophthalmological Society, 1886; (11), B.M.J., vol. II, 1880; (12), Wood Therapeutics, 9th edit., page 149; (13), Virchow Archd., 1892; (14), Univ. Med. Mag. VI, 1894; (15), Berlin Congress, 1890; (16), Treatment, Jan., 1901; (17), Progress Medicale, 1883; (18), Anæsthetist, 3rd edit., 1900; (19), Russian Arch. Pathol., vols. III and IV, 1897; (20), Sem. Med., Nov., 1898.

ETHER ANÆSTHESIA IN CHILDREN.

By R. B. Wade, M.B. (Syd.), Hon. Assistant Surgeon Hospital for Sick Children, Sydney.

As a result of some 200 consecutive cases in children where ether has been the main or sole agent relied upon for the anæsthetic, I have come to the conclusion that it is the drug, at least in children under 13 years of age, that gives the most satisfactory results to the anæsthetist, and is least likely to be accompanied by any fatal results.

That chloroform is not the absolutely safe drug in children that it is generally supposed to be is proved by the fact that of 232 fatalities during its use, collected by Comte, 21 occurred in children. So far we have no figures to guide us in the relative dangers of ether and chloroform, but I believe that no death has yet been recorded during the use of the former in children.

The cases in which I have used ether were of all ages, from one day to 13 years, and I found no greater liability to respiratory troubles in the youngest than in those of greater age.

As regards respiratory troubles, both during and after the anæsthetic (the chief grounds of objection usually raised to the use of ether in children), I have found during the anæsthetic that a few cases exhibited cyanosis resulting from salivation, but not in greater proportion than is found in adults, being the exception in occurrence, and happening generally when the Clover's inhaler was used, and that they have been much more infrequent since the open method only has been resorted to; that post anæsthetic pulmonary complications occurred in one case only, viz., a broncho-pneumonia two days after the operation, but as the child had probably at this time a condition of fibrinous rhinitis, one cannot be quite certain that the pneumonic condition was not secondary to that of the nose.

The method adopted at first was the preliminary anæsthetisation by chloroform or the A.C.E. mixture till the conjunctival reflex was dulled and the second stage at an end, followed for the remainder of the anæsthetic by the administration of ether alone, which was given by a Clover's inhaler in those over five years of age, and in those under by the open method, viz., sprinkled on the lint of a Skinner's chloroform mask.

The method I now use is to employ ether alone from the very beginning, starting off with a very dilute vapour, by pouring on to the mask only one or two drops every few seconds until the patient becomes accustomed to the rather unpleasant taste and smell of the

Digitized by Google

vapour. It must at first be given in even smaller quantities than is necessary with chloroform, the taste of which children seem at first to appreciate. After tolerance of the vapour is established, and this occurs after about 1½ minutes, the ether may be added much more rapidly, from 15 to 20 drops, followed at about the end of a minute by 30 to 40 drops, poured on every 15 seconds until anæsthesia is complete, and that occurs in about five minutes from the time of giving the first drop, at the cost of one or two ounces of ether. Once the condition of anæsthesia is produced, about 20 drops every 40 seconds is sufficient to keep the child under, the quantity, of course, varying slightly according to the size of the child.

The older children, from 8 to 13 years, often take some time longer to get through the second into the third stage by this open method, but if with them the open hand is laid over the mask so as to concentrate the vapour to be inhaled, anæsthesia is very quickly induced.

Hewitt* has for some time used ether in children, but usually precedes it by chloroform till anæsthesia is produced, after which he continues with ether, given with a Clover's inhaler. Rowell used the A.C.E. mixture as a preliminary, followed by the Clover.

Woodhouse Brain, quoted by Hewitt*, uses cones of lint. An Ormsby's inhaler without the bag might also be used, but I have found a Skinner's chloroform mask with one layer of lint sufficient in all cases to induce and maintain anæsthesia, and it has the advantage of being easier to manage and less cumbersome.

My reasons for abandoning the chloroform or A.C.E. were that it was inconsistent to employ chloroform during its most dangerous period, viz., that at the end of the second stage, although this is perhaps of less importance in children than adults, as struggling with a closed glottis till cyanosis appears followed by deep inspiration is less common in children during the stage of excitement, still, even with them, it is a dangerous time; a further reason was that it was found that after the preliminary dosage with chloroform the depressed slow pulse resulting from it took at least 12 to 15 minutes before it was replaced by the full rapid pulse of the exalted circulation characteristic of ether, and about 7 to 9 minutes before it even returned to its normal rate and force, with the result that such short operations as circumcision or tonsillotomy were completed before the ether had time to show its beneficial effects on the circulation and respiration.

The advantages to be claimed for this form of anæsthetisation are simplicity in method and safety in result, as once anæsthesia is induced it is the simplest matter to prevent their coming out, and one may work with a wide margin between the stages of coming out and of overdose—in fact, with the open method it is almost impossible to give an overdose, although Rowell† mentions its occurrence in a few cases where the Clover's inhaler was used.

Apart from the inconvenience caused in five cases where cyanosis, due to salivation, occurred, I have seen no symptoms likely to cause alarm; vomiting during the anæsthetic is very rare, the pulse keeps up good volume and rate, the colour, with the exception of the five above mentioned cases, was good throughout, the respiration frequent, deep and regular—in fact, both circulatory and respiratory systems in an exalted rather than depressed condition during recovery from the drug vomiting was not more marked than after chloroform, contrary to what is the rule in adults; as far as post-anæsthetic respiratory troubles were concerned there was only one case, and it, as before mentioned, was of doubtful origin.

A point in connection with respiratory affection after ether that may be of interest is that I have had to administer ether in three cases where a lobar pneumonia existed—two adults where the closed and one child where the open method was used—and in none of them did the after course of this disease vary from its usual type; the crisis occurred at the usual time, and the recovery was not prolonged. There is, during light ether anæsthesia, not the same tending to reflex shock as is evidenced with chloroform; by reflex shock I mean the dilatation of the pupil, the crowing or catchy respiration accompanied at times by a diminution of the pulse that occurs occasionally in a patient insufficiently anæsthetised, and one finds that this reflex action is lost at a relatively earlier stage in ether than it is in chloroform, so that for any given operation the child may be more lightly anæsthetised during ether than during chloroform. As regards the depth of anæsthesia necessary for ordinary operations, where the skin is the most sensitive part cut, it is sufficient to have the patient with active pupils, and a sharply reacting conjunctival reflex; for circumcisions where cutting the prepuce usually elicits the most active of all skin reflexes, it is sufficient to have the conjunctival reflex sluggish; while for abdominal operations where the intestines are handled, a stage where the pupils are small and active, and the corneal reflex still present is quite sufficient to avoid any reflex phenomena being manifested.

The fact that one is able to do with this light degree of anæsthesia is a distinct gain as one objection often raised to ether, as compared

Digitized by Google

with chloroform, is that the post-operation shock is more profound, and the recovery from its effects more prolonged; in fact, days may elapse before the smell of ether leaves the breath, and this is very often true, but is due, I believe, to over-saturating, practically poisoning the patient with the drug by keeping him under at a deep degree of anæsthesia during prolonged operation where a smaller quantity would have provided quite adequate anæsthesia and not been accompanied by these unpleasant after effects.

The disadvantages of this method of complete ether anæsthesia are small as compared with the advantages. These are the unpleasant effects of the drug on the senses of taste and smell, but this may be to a great extent obviated by giving it in very small quantities at the beginning; the tendency to salivation and hypersecretion of mucus and its consequent obstruction to a free airway. This does occur in a certain percentage of cases, but rather less in children where the open method is used than in adults where the closed method is adopted.

The gravest objection, that of post-anæsthetic respiratory troubles, must at present be laid aside until more definite proof is established as to how much of it is due to the irritation of the ether vapour itself, and how much to the inhalation of the ether from bags and inhalers that have not been properly cleansed.

References.—*Hewitt's "Anæsthetics and their Administration," p. 116; †Rowell's "The Anæsthetisation of Children," *Lancet*, May 15th, 1897.

POST-OPERATIVE SUPPRESSION OF URINE.

By William S. Byrne, M.D. (Dub.), M.R.C.P. (Lond.), Hon. Physician, Lady Lamington Hospital, Brisbane.

Suppression of urine, although a well-recognised condition, is a very much neglected subject in text-books; in fact, its pathology, causation and treatment are summed up in a few lines, and in all the text-books I have searched I have not been rewarded by any definite ideas on the subject. Fortunately, suppression is uncommon, but when it does occur it is of the gravest import.

In going through the literature of cases of anuria, the first fact of importance that strikes one is the length of time that obstructive suppression can last without death ensuing. For instance, Dr. S. T. Knaggs, late of Newcastle, reports a case of complete suppression lasting 11 days; Eustace (*B.M. Journal*, 1896, p. 147), a history of suppression for 21 days, where the case, one of inoperable ovarian cyst, was admitted to hospital, then complete suppression for four days, and three days partial suppression; Counsell (*Lancet*, 1888, p. 972), obstructive suppression for five days, the right ureter having been plugged 12 months previously, the left at the time of the suppression being obstructed by calculus; Butler (*Lancet*, 1890, vol. 1, p. 79), a case where only a single working kidney existed. Owing to previous disease and as the result of accident the ureter on the opposite side was occluded by inspissated thrombus, and suppression followed, lasting 12 days.

In all these cases of prolonged suppression the fact strikes one forcibly that they are all of the obstructive type, and a sharp line of demarcation must be drawn between cases of suppression arising from kidney trouble or with kidney trouble, and those cases of obstructive suppression without any disease of the kidney proper. We must distinguish between true suppression, that is, failure of the kidney to secrete urine, and apparent or obstructive suppression, where, although no urine is passed into the bladder, the kidney is still capable of fulfilling its functions, and, no doubt, does so to a certain extent. It is difficult to understand if obstruction to the flow exists in the ureter or pelvis, and secretion goes on, what becomes of the urine which must accumulate. Is it not possible that the excretion of urea and salts continues, and the fluid part of the urine is absorbed after secretion in some manner hitherto unexplained? Some explanation is necessary, for in all these cases of obstructive suppression there is no mention made of the occurrence of uræmia, which fact is certainly evidence of the absence of urea from the blood, so that we have in a matter of this kind two questions to answer: first, if the kidneys secrete urine, what becomes of it? and second, if they do not secrete urine for five, ten, twelve or more days, how is it that symptoms of uræmia do not occur?

Medical experience of suppression occurring in the course of chronic or acute nephritis is entirely different. Here there is no obstruction to the flow to the bladder, but there is a failure of the kidneys to carry out their functions—namely, to excrete the urea from the blood, and even partial suppression is almost immediately followed by coma, convulsions, and the usual accompaniments of uræmic poisoning.

There are several cases on record of obstructive suppression from calculi lodged in the pelvis of one kidney, whilst the other organ was from some cause incapable of carrying on its functions, the cause being as a rule some old disease, such as calculus or injury; but Monsieur Fereol reports a case, a *resumé* of

Digitized by Google

which appears in the *Lancet* of March, 1890, of a man who suffered from inherited gout, and during two months had had suppression on two occasions, each lasting 24 hours, and a third attack lasting for eight days, at the end of which time a calculus was passed, and recovery took place. The author says that evidences of uræmia were present, but does not specify them, and he explains the suppression by supposing that one pelvis was obstructed by stone, whilst the other kidney was affected by reflex inhibitions from the uninvolved organ. That a previously healthy kidney can suddenly suspend its action under those circumstances is open to doubt, and I am inclined to think that in this case the uninvolved organ was probably useless from prior disease.

I can understand complete suppression of urine occurring in healthy kidneys when very severe surgical shock has occurred, but the suppression would be accompanied by such violent upheaval of the functions of all the other organs, more particularly of the brain and nervous system, that life would not continue long enough to enable them to resume their activity. I have been unable to find a case in which true suppression has occurred from pure shock in previously healthy kidneys.

In our work as surgeons, and more particularly in abdominal work, it behoves us to carefully examine into the condition of the urine before performing any operation. A mere opening of the peritoneum in the presence of albuminuria is to be avoided if possible.

The two great avenues for the excretion of all noxious material from the body are the intestines and kidneys. If either of them fail us, it is a bad lookout for the patient. As we are not concerned with the intestines at present, we shall concentrate our attention on the kidney secretion. After all abdominal operations, we rely on the kidneys getting rid of a quantity of effete material taken up by the peritoneum; and all experience shows us that at first there is a diminution in the quantity of urine passed, which, however, soon rights itself.

If the excretion at the end of 24 or 36 hours falls very short, I am always apprehensive of the development of sepsis, and it is generally of a severe type. If the kidneys are not acting well at the time mentioned, there is retention of injurious material which it is difficult to remove, for it is well known to us all what a trouble it is to get the bowels going freely for at least the first three days; hence, during all this time effete material is accumulating at compound interest, and this may explain some cases of sepsis which are otherwise not plain. Again, septic nephritis is not so uncommon as may be thought; in fact, Pryor lays it down as a fact that in every case of severe puerperal septicæmia albuminuria is present after 48 hours from the onset. If the kidneys are only partially fulfilling their functions, is it not feasible that organisms which ought to be excreted in the urine (possibly in an altered condition) are brought to the kidney for excretion, collect there, and, infecting the tubules and glomeruli, set up a nephritis? One might expect to find organisms in the urine under these circumstances, and I do not see why they should not be searched for, but their absence would not be incompatible with the theory, for I imagine that one of the kidney functions would be the destruction of the active proclivities of these organisms.

On the other hand nephritis may be part of a general septicæmia, with peritonitis, acute pelvic abscess, etc., the infection being of a severe type, throwing more eliminative work on the kidneys than they are able to perform. Worrall, of Sydney, on this point writes: "Suppression of urine after abdominal sections I regard as a hopeless sign of profound sepsis. I have had a post-mortem examination in practically every case I have lost, and in all, the kidneys showed petechial hæmorrhages, infarcts, and general congestion. The quantity of urine passed is a very important sign of how the case is progressing. In all septic cases it is very small. Those cases that have died of or with suppression had all the other signs of peritonitis." Fibroid tumours are a fruitful source of kidney mischief, from pressure on the ureters. I had a case under treatment some years ago of this kind who died from chronic nephritis; nowadays I should have operated before the nephritis appeared.

McMordic (*Lancet*, 1891, p. 937) reports two interesting cases of suppression:—1. Uterine fibroid and retention of urine on admission to hospital, anasarca of lower limbs, etc. Operation; small quantity of urine excreted for some days, then complete suppression and death. 2. Ovarian cyst; operation; a great number of adhesions present; bladder injured, but sutured; for four weeks after operation all went well, then symptoms of uræmic poisoning appeared, followed by suppression and death. In neither case is mention made of the presence of albuminuria previous to operation.

I have met with two cases of suppression occurring within a month of each other, and may be described briefly.

Mrs. C—a case of old pelvic abscess induced, doubtless, by frequent attempts to produce abortion by means of a crochet needle (she acknowledged to 11 attempts in two years)—was admitted to a private hospital for operation after she had been ill for some months. There

Digitized by Google

was albuminuria present. Her pulse rate for some days previous to operation was 84, morning temperature 98 deg. and evening 100 deg. She was much troubled with vomiting, looking very ill and emaciated, and in anything but a good condition for a major operation. After a few days' observation the abscess was evacuated, and the whole of the sac of broad ligament and ovary removed without any great difficulty, and she was put back to bed apparently none the worse. Six hours after a catheter was passed, but only 1 oz. of urine was taken away. There was no more urine secreted, and she died of uræmia 36 hours after. In this case the kidneys were in a condition of septic nephritis at the time of the operation, and for some reason failed to perform their functions after. Some will explain the matter by the term "shock," but, as far as I could see, surgical shock was entirely absent, the pulse rate being only 100 and the temperature 100 deg.

My next case might be described as septic nephritis occurring after the operation, possibly the result of septic infection, although at no time was there any symptom of peritonitis.

Mrs. L. suffered from fibroid of the uterus for several years and removal was decided upon. There was no albuminuria and the specific gravity was 1010. After the operation the temperature began to rise, being 100 deg. that evening, 102 deg. the next two evenings, and then it gradually dropped to 99 deg., and on the seventh day the patient died. Urine was drawn off by catheter in the following amounts: First day, 17 ounces; second day, six ounces; third day, six ounces; fourth day, quantity so small it could not be measured; and on the sixth and seventh days none was secreted. Albumen was present from the third day. From the fourth day evidences of uræmia were present, headache, vomiting, intense sweating, and stupor. There was never any general septicæmia, peritonitis or distension, and the patient died from uræmia pure and simple. I can hardly account for the nephritis in this case. The fact that there was no general sepsis would oppose the opinion that the nephritis was a secondary infection, and my own opinion is that the nephritis was primary.

Regarding the treatment of those unfortunate cases, I am afraid there is not much to be done. Pilocarpine, intravenous, and mammary infusion with salt solution I tried, but without any result.

Fortunately, the complication of acute septic nephritis with suppression is not common, and this will account for the silence of text-books on the matter. I think, therefore, that there are two classes of septic nephritis—primary and secondary. In primary septic nephritis I would include those cases in which there is no kidney disease prior to operation, and in which a nephritis arises during the septic period—namely, the first five days, without any peritonitis or other septic lesion; and, in the secondary group, I would include those cases which are manifestly the result of septic lesions elsewhere, such as peritonitis, lymphangitis, or pelvic abscess.

(Read before the Queensland Branch of the British Medical Association.)

A SIMPLIFIED METHOD OF ACCURATELY ESTIMATING DEGREES OF LEUCOCYTOSIS.

By F. Guy Griffiths, B.A., M.B. (Syd.), Gundagai, N.S.W., late Resident Pathologist, Sydney Hospital.

In an editorial in the November number of the Australasian Medical Gazette an examination for the absence of digestion leucocytosis is recommended as a help in the diagnosis of early cases of malignant disease of the stomach. A difficulty that occurs in such an examination lies in the fact that small errors might obscure the difference between the number of leucocytes before and after a meal. Ordinarily, where the enumeration of the leucocytes is of diagnostic value there is no necessity for any great degree of accuracy. For example, the difference between the counts in typhoid fever and pneumonia is so great that an error of 10 or 20 per cent. is quite negligible, for in the former case one would expect to find 4000 to 9000 cells per c.mm. and in the latter 20,000 to 60,000, or even more.

It is only when a comparison is needed between the counts on two or more different occasions in the same case, *e.g.*, when watching for the indications of the formation of pus in appendicitis or other acute inflammation, or of the effect of digestion in disease of the stomach, that it is necessary to eliminate these errors. The greater accuracy required is obtained by counting a large number of cells, a number much larger than fall on the ruled area of the hæmacytometer slide.

This may be done either by employing a great many slides, or by counting cells on the slide outside the ruled area, and then estimating the area searched.

The object of this note is to describe a simple manner of applying the latter method, and one which at the same time does away with all the difficulty and annoyance associated with the subsequent calculation. It was suggested by an article by Dr. Otto Grunbaum, in Cheyne and Burghard's work on surgical treatment.

Digitized by Google

It is well known that, using a dilution of 1 in 20 and the Thoma-Zeiss instrument, if the cells in all the 400 squares on the ruled slide be counted and the result multiplied by 200 we get the number of cells per c.mm. without any elaborate calculations such as would be necessary did we count 364, or some other number of squares. Now, choose a large square in each side of which are x small squares, and so adjust the slide that the centre of the large square is in the centre of the circular microscope field. If the angles of the large square fall on the circumference of the field, proceed to count the cells; if they fall outside, decrease the magnification by substituting weaker lenses till they come just within. When they are within gradually increase the magnification by drawing out the microscope tube until they just rest on the circumference of the field. The position of the draw tube once found can be marked with a scratch, and so readily recovered on future occasions. We can now calculate the volume of diluted blood in that cylinder beneath the objective, all the cells in which have fallen on to the portion of the slide in view in the field. It is $\pi v^2 h$ where v is the radius of the field, and h the height of the cylinder.

Now $v = \frac{1}{2} \times x \times \frac{1}{20}$ mm. (for the side of each small square is $\frac{1}{20}$ mm.) and $h = \frac{1}{10}$ mm. in accordance with the construction of the instrument, therefore the volume of diluted blood is

$$\pi \times \frac{x^2}{2} \times \frac{1}{2000} \text{ c.mm.}$$

Supposing now the slide to be moved and a fresh field searched, and so on till in all n fields have been searched; then, if the total number of cells counted is S, there are S cells in

$$n\pi \times \frac{x^2}{2} \times \frac{1}{2000} \text{ c.mm.}$$

of *diluted* blood; and therefore in one c.mm. of *diluted* blood there are

$$\frac{S}{n\pi} \times \frac{2}{x^2} \times 4000 \text{ cells,}$$

and in one c.mm. of *undiluted* blood there are

$$\frac{S}{n\pi} \times \frac{2}{x^2} \times 4000 \times 20 \text{ cells,}$$

i.e.,

$$S \times \frac{2 \times 20 \times 4000}{\pi n x^2}$$

If now we choose n and x, so as to make

$$\frac{2 \times 20 \times 4000}{\pi n x^2} = 20 \text{ say,}$$

we shall have no calculating to do, but merely to multiply by 20 after counting all the cells in n fields.

Giving x any suitable value, it is easy to find the corresponding value of n, such, that

$$\frac{2 \times 20 \times 4000}{\pi n x^2} = 20.$$

Thus: suppose x is made equal to 7, then

$$\frac{2 \times 20 \times 4000}{\pi n \times 49} = 20$$

$$i.e. \quad \frac{8000}{49 \pi n} = 1$$

$$i.e. \quad n = \frac{8000}{49 \pi}$$

$$\text{Now } \pi = 3{\cdot}14159$$

$$\therefore 7\pi = 21{\cdot}99113$$

$$\therefore 49\pi = 153{\cdot}93791$$

$$\frac{8000{\cdot}0000}{153{\cdot}93791} = 51{\cdot}9; \text{ or } 52 \text{ nearly.}^*$$

$$\therefore n = 52$$

and this shows that if the magnification be so regulated that a large square of 49 small squares just fit within the circumference of the microscope field, and all the cells in 52 such fields be counted, then the number of cells per c.mm. is this total multiplied by 20, and the accuracy of the result obtained is sufficient for all purposes of diagnosis.

With Leitz lenses an objective 6 and ocular 2 give the required magnification when the tube is drawn slightly out, and at the same time it will be found that the cells appear of a size very suitable for enumeration. I have found it convenient in counting to neglect all those cells which touch the half of the circumference of the field nearer to the investigator, and to include all those in the half of the circumference removed from the investigator.

If any one should prefer a different degree of magnification he can easily determine the number of fields to search (n) from the equation $\frac{2 \times 20 \times 4000}{\pi n x^2} = 20$, by giving x any required value.

*NOTE.—The error due to taking $n = 52$ instead of $n = 51{\cdot}9$ amounts to less than 1·6 per cent., and affects the *individual result* only, not the *comparison of results*, each result being affected to the same degree.

Adelaide Hospital Board. — Mr. Charles Tucker, M.P., has resigned his position as chairman of the Board of Management of the Adelaide Hospital. The Hon. George Brookman, M.L.C., has been elected to succeed him. Mr. W. G. Coombes, of the Adelaide Hospital Board, who is visiting England, has been granted a commission by the Government to enquire into matters connected with hospital administration in the old country.

Digitized by Google

A CASE OF CROSSED HEMIPLEGIA AND CONVULSIONS IN AN INFANT SIX WEEKS OLD.

By H. G. Holmes, M.B., Ch.M., Warialda, N.S.W.

Mrs. B. brought her infant, aged six weeks, to me on the 29th May, giving the following history:—

The child was perfectly healthy from birth till three days ago, when the mother noticed that the cry was "peculiar and high pitched." On the evening of the 28th, convulsions began suddenly—about six fits in close succession. Since then the fits had recurred constantly, at intervals of five or ten minutes, rarely of an hour or more, and were increasing in severity. The fits chiefly affected the left side—the right hardly at all. There had been no cough, vomiting, or diarrhœa; nor had there been any wasting lately.

Past History.—No history of injury. Labour had been easy, but not precipitate. No snuffles or history of syphilis. No ear trouble.

Family History.—No phthisis or bone disease in the family. A cousin had just died from sarcoma of the kidney. At the time no history of hæmophilia was elicited, but a week later the maternal grandmother stated that she bled a great deal on injury, and suffered frequently from severe nose-bleeding, and that her three sons suffered in the same way, but not her daughter, the patient's mother. There had been no deaths from bleeding in the family.

Examination showed the child to be well nourished and healthy-looking, with no evidence of syphilis, no petechiæ or ecchymoses, or other signs of hæmorrhage, but restless, and crying continuously. Temperature was 98·6° F.; pulse, 120 and regular. Two fits occurred while in the surgery. They began by fine rapid clonic spasms of the tongue, which was protruded slightly to the right, the movements being chiefly in an antero-posterior direction; at the same time the lips twitched continuously and rapidly. Following this was conjugate deviation of head and eyes to the *right*, all the facial muscles were thrown into a state of clonic spasm, more marked on the right side, as evidenced by the right corner of the mouth being drawn back to an appreciably greater degree than the left. With this all the muscles of the *left* arm showed clonic contractions, with the hand tightly clenched. There was no spasm of the left leg, though the mother stated that the "left leg was drawn and twitched last night during the fits." During the interval between the attacks the left leg and arm were flaccid and motionless. In the intervals between the fits, the act of crying drew the mouth to the left. The convulsions lasted from one to two minutes, were unaffected by external stimuli, and there was no loss of consciousness, alteration in pulse rate, or relaxation of sphincters. There was no aphonia, but as the spasms commenced the voice became broken and then ceased for the rest of the fit. The tongue was coated and bowels regular.

Heart and Chest were clear. Respiration at irregular intervals was very quick and shallow; but there was no typical Cheyne-Stokes' breathing. The urine was not tested.

Muscular System.—No wasting; no rigidity between attacks.

Nervous System.—Knee jerk slightly less on left side, but scarcely abnormal; no ankle clonus; elbow jerks not obtained; plantar reflex marked on left side, with extensor response; flexor response on right side.

Eyes.—No ophthalmoplegia apparent. Pupils reacted to light; not contracted; both very variable—at one time equal, at another the right larger than the left. No nystagmus nor ptosis. From the fleeting glimpses obtained, the retina seemed normal; no view of the optic discs could be obtained.

There was fulness of the anterior fontanelle, but no pulsation.

Diagnosis.—The greater implication of the right side of the face in the spasms and subsequent weakness, and the spasms of the left arm, pointed to an irritative lesion of the right side of the pons below the decussation of the facial fibres; this was confirmed by the conjugate deviation of the head and eyes to the right—*i.e.*, to the side of an irritative lesion. As to the nature of the lesion, there was nothing to point to tubercle. Though improvement occurred under potassium iodide, in the absence of definite signs of syphilis this was probably a coincidence, as it continued on leaving off the drug. In the absence of coma and contracted pupils, and, at first, of the family history of bleeding, the diagnosis seemed to me rather that of a rapidly-growing neoplasm suddenly producing irritation than of hæmorrhage, in favour of which, however, was the sudden onset. Subsequently the discovery of a family history of bleeding and the speedy recovery made the diagnosis of one or more small hæmorrhages into the pons a pretty certain one. There was no cause for embolism.

Prognosis was unfavourable.

Treatment and Course.—Pot. brom. in increasing doses failed to arrest the fit. Pot. iod. gr. ½ every hour was given with the bromide on the second day. The temperature varied between normal and 99·6° until a concomitant attack of thrush sent it up to 100·4°.

Digitized by Google

May 30, 1902.—Spasms continuing unaltered. Left knee jerk normal, right exaggerated. Imperfect ankle clonus on left side. Extensor response on both sides, more marked on the left.

May 31, 1902.—Fits less acute and frequent. Both knee jerks exaggerated. Left ankle clonus marked. A few spasms in right arm and lower part of left side of face. Deglutition becoming difficult.

June 2, 1902.—Spasms in both arms and left leg. Right arm in a state of tonic spasm, with right elbow abducted, and hand brought to the side. Deglutition much more difficult.

June 5, 1902.—Slight nystagmus in right eye. Can move arms and right leg. Knee jerks less marked. No plantar reflexes.

June 6, 1902.—In a state of cerebral irritation. Cannot swallow. Ol. morrhuæ rubbed into skin and enemata of white of egg given.

June 9, 1902.—Able to swallow. Deviation of head and eyes less. Left ankle clonus. Movements of left arm and leg improved.

June 19, 1902.—No more convulsions. Very slight drawing of mouth to the left on crying. No deviation of head and eyes. No ankle clonus. Knee jerks normal.

July 7, 1902.—No more fits, no paresis, paralysis, or rigidity. The child appears normal in every respect and has been quite well ever since. The pot. iodide was continued for three weeks.

I had given an unfavourable prognosis based on the situation of the lesion, and the paralysis of deglutition and the disturbance of respiration, which I took to be signs of implication of the medulla. The rapid recovery, therefore, surprised me. The tongue in this case appeared to be affected on the same side as the limbs, as is usually the case. The implication of the right arm may have been due to a second hæmorrhage.

CLINICAL AND PATHOLOGICAL NOTES.

A CASE OF SPREADING TRAUMATIC GANGRENE.

Mohammed H. was admitted to hospital on a Sunday with left hand smashed by an iron bar used in well-sinking. Under chloroform the wound, which was covered with soil, was very thoroughly cleaned and two digits amputated. On Tuesday signs of septic traumatic gangrene appeared, with well marked emphysema. Perchloride hot bath was used and, since the gangrene had spread, on Wednesday the arm was amputated just below the elbow, there being objections to higher amputation. On Friday it was evident that gangrene had recurred in the flaps; general condition was very serious; vomiting, and great pain in left side of neck and back. Since patient's friends were very much averse to amputation at shoulder, it only remained to use hot perchloride foments, stimulate freely, and exhibit perchloride of iron. On Saturday gangrene was still spreading, but from Sunday onwards it ceased to do so. Sloughs were thrown off, and a fairly clean wound existed, when, on the following Sunday, secondary hæmorrhage necessitated ligature of the brachial. Although for several days the patient was very low from hæmorrhage, in four weeks' time the whole granulating surface was entirely covered, grafting having been employed.

The interest in the case lies in the fact that although gangrene had recurred in the flaps and extended several inches up on the internal aspect of the upper arm, and amputation at the shoulder was not attempted, complete recovery took place, which seems to be contrary to the usual experience.

E. Maynard Pain,
Old Cairo, Egypt. M.B., Ch.M. (Syd.)

A DENTIFEROUS CYST AND OTHER ABNORMALITIES IN AN ABORIGINAL SKULL.

The skeleton, concerning which the accompanying notes were made, was unearthed many years ago from a native oven mound in the Mortlake district, Victoria, within the boundaries of the Koonawanne or Kirrie Woorong tribe of blacks. Seemingly the skeleton was that of an elderly female, or one, at all events, beyond middle age. The most noteworthy feature is the presence of a dentiferous cyst, apparently containing the first upper right premolar. In the palatine process of the right maxilla is to be seen an oval necrosed area, about $\frac{9}{16}$ in. by $\frac{3}{8}$ in. in its superficial diameters, extending from the mesial palatine suture to the alveolar process, and opening into the sockets of the canine and lateral incisor teeth of that side, so that their roots are laid bare. Close to them is situated the misplaced tooth (horizontally disposed, with its long axis forming an acute angle with the mesial palatine suture) buried in the palatine process, and only partially exposed in the floor of the excavation, chiefly in the maxilla proper, but extending to the junction of that bone with the premaxilla. On the floor of the nasal fossa is a distinct projection corresponding with the site of the abnormally situated tooth. The teeth in the alveolar process are in unbroken series, and the nature of the aberrant one was only ascertained

Digitized by Google

by extracting the others, and studying the characteristics of their roots, etc. On this same side the tuberosity of the maxilla is very feebly developed, being, in fact, reduced to a mere ridge. The teeth on this side posterior to the canine are situated unusually far forward so that the third molar occupies a position almost in the same coronal plane as the contralateral second molar.

That this is a true dentiferous cyst admits of no doubt. That it was the result of an accident in the operation of removal of the front teeth for ceremonial purposes (such as obtains over a large area of Australia) is negatived by the fact that such a rite was not practised on either sex in this part of Victoria. If we accept the age at death of this individual as 45, assuming the eruption of the first bicuspids to have taken place at the age of ten years, then the unfortunate lubra must have borne with her infirmity for 35 years.

The same specimen displays caries in a number of teeth, both upper and lower, as well as atrophy of the alveolar ridge, where the teeth had previously been lost. Further, a sinus extends through the body of the mandible above and behind the mental foramen, from the surface of the bone to the root of the decayed second right bicuspid.

The crowns of almost all the teeth are well worn, nearly flat, and with their distinctive features no longer recognisable—a condition typical of the Australian aboriginal, the causation of which has given rise to so much speculation. At the same time the skull, so far from being prognathous, is orthognathous, with a gnathic or alveolar index of just under 98 deg., instead of 104 deg. as ascribed to the Australian native by some investigators. Nor is there any receding of the chin. Lastly, the right ulna in its lower third presents an enlargement and thickening as if it had been the site of a localised osteitis and periostitis (probably traumatic) or had been fractured, and its continuity restored with remarkably little deformity.

JOHN MACPHERSON, M.A., B.Sc., M.B. (SYD.).
Young, New South Wales.

Sydney Suburban Provident Medical Association.—The usual quarterly meeting of the active staff was held at 121 Bathurst-street on March 31st, 1903. Dr. Worrall presided. The dividend for the quarter ending March 31st, 1903, was declared at the rate of 17s per member per annum. The hon. secretary's report for the quarter and the treasurer's statement for the same period were adopted. These showed the Association to be in a most satisfactory state financially and generally. Several additions had been made to the active staff, which now numbers 89.

MIRROR OF HOSPITAL PRACTICE IN AUSTRALASIA.

ADELAIDE HOSPITAL, S.A.

DISSEMINATED CARCINOMA RESEMBLING HODGKINS' DISEASE (MALIGNANT LYMPHADENOMA).

(Under the care of Leonard W. Bickle, F.R.C.S. (Edin.), Honorary Surgeon).

MRS. E. F——, *æt.* 44 years; married; seven children (youngest, 5½ years), two miscarriages; native of Ireland; a resident in colonies 20 years, was sent to me as one of lymphadenoma, to see whether anything could be done surgically to relieve the dyspnœa, which was attributed mainly to the pressure of the masses of enlarged glands.

On Admission.—Patient is a well-nourished woman, profoundly anæmic, and breathless on the least exertion. In addition, she complains of large swellings in the neck and left armpit. On referring to the photograph it will be seen that the neck is much broadened, due to large masses of swollen glands, the outlines of which are distinct, but the glands are adherent to each other. They extend from below the ear to the clavicle on each side, and there are two in the left anterior triangle of the neck as well. The skin is freely movable over them. No fluctuation obtainable. They are slightly tender on pressure. Two large glands are to be found in left axilla as well; none elsewhere.

Duration and History.—First noticed the glands swollen six months ago, on the left side; shortly after glands on right side became affected. Glands in left armpit noticed about two months since.

Has not suffered from sore throat. Never had any hæmoptysis nor night sweats. Thinks she has lost flesh; has become much paler. Very short of breath. Feet swell if she stands or walks. Has never had any serious illness. No knowledge of any consumption or cancer in her family.

On admission, temp. 98·4. Pulse 112 regular; compressible, volume small.

Urine acid; faint trace albumen; no sugar.

Heart.—No definite bruit.

Lungs.—Percussion note impaired in left axilla; also down front of chest. Breath sounds weakened, and vocal fremitus diminished. Crepitations under left clavicle in front and over both bases posteriorily.

Spleen.—No enlargement to be made out.

Digitized by Google

The general condition was such as to preclude any operation; apart from this the dyspnœa did not seem to depend on pressure of glands alone. Temperature irregular; often over 100°. A few days after admission it was noticed that the body was more or less covered with small discrete lumps, hard and movable, under the skin, much as one sees sometimes in a recurrent carcinoma of breast.

Patient's condition became worse each day, and she died somewhat suddenly about two weeks after admission. Unfortunately the husband refused a post-mortem. It was considered probable that there were enlarged glands in the mediastina, as well as deposits in the lungs.

After death it was found that she was wearing some false hair to cover up a growth on the back of the head. This had been present since birth but had grown of late. A photo of this was secured, and is here reproduced. The larger portion was an ordinary sebaceous cyst surrounded by fleshy growths—growing with small pedicles and having the feel of the pedunculated molluscum fibrosum. The general appearance was decidedly cauliflower-like, but there was no evidence of ulceration or induration. A small piece was cut out and also one of the small tumours of the body. These were submitted to microscopical examination by Dr. Johnson, who pronounced both to be malignant in character.

Remarks.—In Hutchinson's Archives of Surgery, vol. III., plate XC, p. 336, there is a plate showing growths on scalp, and on the body a number of scattered nodules much as in this case. In Hutchinson's case the origin of the disease was supposed to be in the sebaceous glands. Sebaceous cysts had been common in the patient's family for some generations. In my case there was no such history, nor on the other hand in Hutchinson's case was there the resemblance to Hodgkins' disease so remarkable in this.

The etiology of Hodgkins' disease is still obscure, and the subject of much controversy. The name "dermoid carcinoma" applied to it by Schultze and Wagner is peculiarly interesting in the present case. The blood was examined more than once; but whilst there was a noticeable increase of white corpuscles, the number was not in accord either with Hodgkins' disease (pseudo leukæmia) nor with a true leukæmia, nor was there any splenic enlargement. It is by no means a constant thing for the glands to enlarge simultaneously in neck, axillæ, and groin in Hodgkins' disease; the affection is often gradual and unilateral at first. The unfortunate part



FIG. 1.



FIG. 2.

Digitized by Google

in this case was the refusal of a post-mortem. We are still in doubt as to the nature of the gland enlargement. The growths on the head having been there so long, and the total absence of anything approaching induration or ulceration preclude the probability of the glands being enlarged from absorption. They may have been cancerous or not, but the fact remains that the growth snipped off the head and the nodule taken from near the buttock both showed malignant degeneration. It is possible, of course, to have intercurrent a condition of disseminated carcinoma of skin and a glandular enlargement, having all the clinical appearances of a lymphadenoma. Anyway, the case is interesting as showing a connecting link between carcinoma and other conditions, which, whatever name we may like to apply to them, are, in every sense of the word, malignant.

REVIEWS AND NOTICES OF BOOKS.

A Treatise on Diseases of the Skin. By Henry W. Stelwagon, M.D., Ph.D., Clinical Professor of Dermatology, Jefferson Medical College, Philadelphia, etc. Philadelphia and London: W. B. Saunders & Co. 1902. Melbourne: Jas. Little.

This text-book in many respects compares very favourably with most of the recent productions dealing with the same subject; and as the information therein contained is accurate and up to date it will, no doubt, prove a useful work of reference to the general practitioner.

The chapters on Anatomy and Physiology embody an unusually clear digest of known facts, and in this part the author has very wisely placed his diagrammatic and other illustrations in the text in convenient proximity to the matter illustrated, and not, as is often the case, at the beginning or the end of the book. The somewhat alarming list of pseudo-Latin and other terms included under the heading of "Lesional Configuration, etc.," savours somewhat of mediæval medical nomenclature, and might be considerably abbreviated, or even omitted altogether, without any detriment to the work as a whole.

The chapter on General Etiology, though containing much useful information, is tediously drawn out and could with advantage be condensed. The division on General Diagnosis is exceedingly good on the whole; and we note that the author wisely lays especial stress in cases where there is any doubt as to the diagnosis upon the importance of examining the whole of the body. The part dealing with "Types of Eruption as a Diagnostic Factor" contains a somewhat monotonous list of diseases under each type of lesion. If these lists were abbreviated, arranged in a tabular form and placed, perhaps, at the end of the division describing primary and secondary lesions, they would be more convenient for reference, and less suggestive of padding.

The general advice with regard to treatment is excellent; and here we note, with especial satisfaction, the warning against the indiscriminate use of arsenic in dermatological practice. With regard to the author's classification of skin diseases, while fully recognising the difficulties of this subject, we fail to see any logical reason why such diseases as tuberculosis of the skin, erysipelas, malignant pustule, leprosy, etc., etc., should not be placed just as appropriately as blastomycetic dermatitis and actinomycosis under the heading of parasitic affections.

On considering the more particular descriptions of the various diseases we think that the discussion of the so-called "trade eczemas" might more suitably have been confined to the article on dermatitis venenata instead of being, at the risk of confusing the reader, mixed up with eczema proper. The coloured illustrations are copied from "Mracek's Atlas," and these leave very little to be desired. The remainder are for the most part from photographs and are most beautifully reproduced, and as examples of the photographic art leave also little room for improvement; but, at the same time, they illustrate, especially when compared with the above, how imperfectly, as a rule, even the best uncoloured photographs convey a correct idea of the various skin lesions.

However, we are pleased to say that the points of adverse criticism enumerated above are mere trifles when we consider the general excellence of the work. Though neither laying claim to nor containing any marked originality, we repeat it is thoroughly up to date in pathology, diagnosis and treatment, and it is especially good and practical in the latter.

The printing is clear and good, and the style is eminently readable, though the examples of abbreviated spelling are occasionally somewhat startling. On reading this book, and noting the long lists of references at the bottom of every second or third page, one cannot help being struck with admiration at the extreme industry and care exercised in its composition. The author is to be congratulated on producing a work which will be a useful addition to the library of either the specialist or general practitioner, and we trust that it will meet with the success which it undoubtedly deserves. W.J.M.

Atlas and Epitome of Traumatic Fractures and Dislocations. By Professor Dr. H. Helferich, Professor of Surgery at the Royal University, Griefswold, Prussia. Authorised translation from the German. Edited by Joseph C. Bloodgood. Fifth edition. Revised and enlarged. Philadelphia and London: W. B. Saunders and Co. Melbourne: Jas. Little, Bourke-street.

This is, on the whole, an extremely good book. The plates are clearly defined and must be of immense assistance in making clear the descriptive work, which must of necessity in a book of this size be somewhat curtailed. However, the combination is such a happy one that any student shou'd quickly be able to grasp a sound practical view of the subject on which he wishes to obtain information. Great stress is wisely laid on the importance of placing the arm in a position of supination in fractures of the forearm, particularly when the fracture is high up, in order that the bones may not overlap but be parallel to one another. This goes a long way, though it does not absolutely prevent lateral union of the adjacent bones. It also leaves the lower fragment of the radius in a position of absolute supination corresponding with the position of the upper fragment which is placed thus by the action of the biceps. It is stated that rupture of the internal semi-lunar cartilage is due to active rotation of the end of the femur while the knee is flexed. This is certainly not the case. The injury is almost always associated with a greater or lesser rupture of the internal lateral ligament produced by a forcible rotation and some flexion outward of the leg on the thigh while in an extended position.

Some care has been taken to point out the fallacies of X-ray photographs of fractured bones, particularly of

Digitized by Google

they are situated near the epiphyses in young people. It will be found to be of far greater value if the surgeon himself examines the fracture with the screen. He is more likely to arrive at a correct estimation of the form of fracture and the amount of displacement The remarks by the editor certainly add to the value of the book, which represents in a concise form practically all that is at present known of this branch of surgery. H.C.H.

CANCER OF THE UTERUS: A CLINICAL MONOGRAPH ON ITS DIAGNOSIS AND TREATMENT, WITH THE AFTER-RESULTS IN SEVENTY-THREE CASES TREATED BY RADICAL OPERATION. By Arthur H. N. Lewers, M.B., Lond., F.R.C.P., Lond., Obstetric Physician to the London Hospital, late Examiner Royal College of Surgeons, etc. With 51 original illustrations and 3 coloured plates. London: H. K. Lewis, 136 Gower-street. 1902.

This is a treatise on Cancer of the Uterus, from a clinical point of view principally. The author devotes the whole volume to a review of his own work in the last 17 years. He reads once more the oft-repeated lesson to the general practitioner, that early recognition of the existence of malignant disease is the key to successful treatment; yet Dr. Lewers, after even his own copious experience, can promise, in an early-recognised series, only "a good prospect" of permanent relief. Good results, as results go in this disease, he has obtained; but when we find that the 19 cases which are claimed as cures comprise only two or three per cent. of the entire number he has had under observation, it cannot be said that the result is brilliant. *Haec quid sunt inter multos?*

The statistics of actual operation are very good; of supra-vaginal amputation of the cervix there were 18 per cent. of survivors after five years, and of vaginal hysterectomies 14 per cent. Of vaginal hysterectomies for primary cancer of the body (11 cases only) five were living after a lapse of four years, and these the author regards as cures. The cases for operation were selected with exceeding care.

Towards the early recognition of the disease, Dr. Lewers makes a practical suggestion. He would endeavour to make women themselves more familiar with the diagnostic signs by the distribution of leaflets from some authoritative and impersonal source (say the R.C.S.), through the medium of medical men, matrons and nurses. This plan might very well be tried for a period of years.

It cannot be said that the book opens up new ground, yet it gives evidence of careful and persistent battling with the disease, and the record of cases is interesting reading. The methods of other surgeons are described and discussed in a fair spirit. The chapters on symptoms and diagnosis are excellent. The volume will repay a careful perusal. It is well printed in good type, and fully illustrated throughout. A.W.M.

ATLAS AND EPITOME OF OTOLOGY. By G. Bruhl, M.D., and Prof. Dr. A. Politzer. Edited by S. MacCuen Smith, M.D., Clinical Professor of Otology, Jefferson Medical College, Philadelphia. 292 pages, with 244 coloured figures and 99 text illustrations, price 15s. Philadelphia and London: W. B. Saunders. Melbourne: Jas. Little.

Of the work under notice it may be said that the Atlas forming the first half of the volume is the portion which particularly attracts attention. The second half, however, is an excellent text-book on, firstly, the anatomy and physiology of the organ of hearing, and, secondly, on the pathology and treatment of aural disease. It is well up to date, freely illustrated with excellent woodcuts, and should prove a most useful guide to the general practitioner. As to the Atlas, the coloured lithographs of the drumhead in health and disease, as seen through the speculum, are the least satisfactory, although just as good as any which have previously appeared in other works. Those representing the anatomy of the temporal bone, however, are beyond all praise. These plates of sections are so numerous, so clear and accurate, that they must prove of the greatest use in forming an intelligent conception of this complicated piece of anatomy. Plates of the labyrinth, injected with mercury, the bone afterwards being rendered transparent, are calculated to clear up many an idea which otherwise may have been extremely hazy.

The book is comparatively costly, but we have no hesitation in saying it is well worth the money. G.T.H.

SELECTED PAPERS ON OPERATIVE AND CLINICAL SURGERY. By the late William Stokes, M.D., M.Ch. (Univ. Dub.), F.R.C.S.I., Knt., Surgeon-in-Ordinary to her late Majesty Queen Victoria in Ireland, etc. Edited by William Taylor, B.A., M.D. (Univ. Dub.), F.R.C.S.I., Surgeon to and Lecturer on Clinical and Operative Surgery, Meath Hospital and Co. Dublin Infirmary, etc. With a Memoir of the Author by Alexander Ogston, M.D., Regius Professor of Surgery, University of Aberdeen. London and Dublin: Baillière, Tindall & Cox. Sydney: L. Bruck. 1902. Price, 10s net.

This book comprises 36 selections from the published papers of the late Sir William Stokes, the whole of which, with the exception of the papers on the South African campaign, had been selected by the author before his death for re-publication. The papers cover almost the whole field of surgery, as may be gathered from the titles of some of them: Pylorectomy, Excision of the Shoulder and Knee Joints, Radical Cure of Hernia, Supra-condyloid Amputation of the Femur, Hare-lip, etc. etc. Stokes' Case of Pylorectomy was the fifth performed in the British Isles, and, like the preceding four, ended fatally. His observations of this case led him to formulate some propositions which are in accordance with present-day views, such as the necessity for early diagnosis, the performance of an exploratory operation in doubtful cases, the washing out of the stomach; that shock and collapse were the outcome of the protracted operation, and the necessity of shortening the time of the operation by determining what is an effectual and at the same time speedy method of inserting sutures. All the papers are written in the clear, crisp style for which the author was celebrated, many of them being illustrated. Not the least interesting feature of the book is the Memoir by Professor Ogston. The printing and general get-up of the book are in the publishers' best style. W.H.C.

Measles in Fiji.—An epidemic of measles is spreading rapidly throughout Fiji despite all the precautions and attention of the local authority. Cases have been reported from Rewa and Navua. There are many cases in Suva, but it is impossible to give the exact numbers. In Suva alone 225 cases have been reported. In the country districts so far 64 cases are known. There have been three deaths in the Colonial Hospital, one at Samabula, and one in Suva, from the results of measles. The Medical Department and Dr. Lynch, the Acting Chief Medical Officer, are leaving no stone unturned to combat the epidemic. The Suva Public School has been closed, owing to the number of cases amongst the children. Fifty of the armed native constabulary are down with measles and 18 of the police.

The Triennial Osiris Prize of 100,000 francs (about £4000) has been awarded to Dr. Roux, of the Pasteur Institute, for his discovery of diphtheritic serum.

Digitized by Google

THE AUSTRALASIAN

MEDICAL GAZETTE.

SYDNEY, 20TH APRIL, 1903.

PRELIMINARY EDUCATION OF MEDICAL STUDENTS.

PERHAPS no subject is attracting more attention at the present day among those responsible for the guidance of the education of medical students than the adjustment of the time devoted to preliminary studies as opposed to the more practical subjects of the medical curriculum. In the recent revision of the medical course at the Sydney Medical School, the purely scientific studies of the first year have been curtailed to some extent to allow of more time being devoted later in the course to purely practical work in the hospital wards. We are behind no one in our anxiety to see the later years of the students' curriculum in medicine devoted as fully and exclusively as possible to practical work in the hospital with a minimum of systematic class lectures; but for a student to be able to fully appreciate and utilise his opportunities for clinical study in the hospital he must have had a careful preliminary training in the methods of observation and study.

We know that among medical practitioners more mistakes are made from neglect of careful observation than from ignorance of the principles and practice of medicine and surgery, and it is this importance of training the medical students in the habits of careful observation which necessitates the year of study in the preliminary scientific subjects.

It is quite true that the five years of the medical course are full to overflowing with *necessary* subjects, but the capacity of the average student must be considered, and any subject not absolutely necessary must be excluded or made an optional subject. But we would go back to the time before the student enters upon his strictly medical course and emphasise the importance of all students who contemplate entering upon the profession of Medicine being trained in the high schools in such subjects as Botany, Natural History and Chemistry—subjects which call forth those powers of observation, comparison and classification which are so essential for a satisfactory grasp of medical science and practice. Readers of the life of Sir JAMES PAGET will remember that while he was an apprentice in Yarmouth he spent a large part of his spare time in practical botany, and his unique collection of plants from the whole of the surrounding districts commanded the admiration of Sir JOSEPH HOOKER. Can anyone doubt that this training in the powers of observation and classification of plants was a powerful factor in developing those habits of mind and thought which so pre-eminently characterised him in the work of his later years and brought him world-wide renown?

We entirely agree with Mr. MAIDEN, the Director of the Botanical Gardens, Sydney, in his remarks at a meeting of the Teachers' Association on the great value of botany as an educational subject, and we are of opinion that practical botany—not vegetable physiology — and natural history, using the term in the old sense and as distinct from modern zoology, are subjects of paramount importance in the preliminary training of medical students. They should be taught in the high schools to those contemplating entering the medical profession, so that the students may come to the Universities to some extent, at any rate, trained to study and observe. If practical botany and natural history were made compulsory subjects in the entrance medical examination, we would find the high schools taking up these subjects; but the schools will not take the initiative; it is the Universities that must make the standard.

Digitized by Google

SPINAL NEUROSIS.

It has long been recognised that persons who have been injured in railway and tramway accidents are liable to develop a condition of the nervous system, which has been variously termed "spinal concussion," "spinal neurosis," and "railway spine." These are the cases which from time to time are the subjects of litigation between the sufferers and the railway officials, when medical evidence is adduced by both parties to the suit, and the public are edified (?) by the spectacle of doctors directly differing from one another in the law courts, and the judge practically ignoring the conflicting medical evidence altogether.

In a serious railway accident there are, unfortunately, frequent instances of actual injuries to the skull and spinal column, and corresponding direct damage to the central nervous system. These cases are, as a rule, quite obvious, and give rise to no difficulty in diagnosis. But it is otherwise with those who have either received no direct injury, or at any rate a very slight one, to the spinal column, and who, after a varying period, manifest certain symptoms and signs of nervous derangement, which require all the care and attention of the skilled specialist to decide upon their nature. The pain in the back, the acute spinal tenderness, the muscular weakness, the paræsthesiæ, anæsthesiæ, and analgesiæ, which these patients present, together constitute the clinical picture of "spinal neurosis," and the difficulty is to determine whether these symptoms are purely functional in character or whether they are functional plus organic. Unfortunately we must also recognise that in some evil-minded persons these symptoms are deliberately and intentionally feigned, and so clever is the counterfeit sometimes that medical men may be completely deceived, as witness a case which recently came before the courts in some of the Australian States.

But leaving aside the professional swindlers and those with obvious organic lesions of traumatic origin, we must remember that while the sudden shock to the nervous may in rare cases cause a hæmorrhage into the spinal canal or spinal cord (in which cases symptoms will ensue immediately on receipt of the injury), in the vast majority of cases it determines a condition of mental hyperæsthesia and introspection, with the result that as time goes on the symptoms become aggravated, and may be grossly exaggerated by the patient's distorted mental vision. This condition of affairs becomes still worse when, in view of litigation for assessment of damages, the patient is visited and overhauled by a number of medical men, who, in the course of their cross-questioning and examination, unwittingly suggest new symptoms and signs to the already exalted imagination of the patient. What is the result? His symptoms become more and more aggravated, and by the time the case comes before the court the patient is in a state of high nervous and mental tension. When the case is settled one way or the other, the mental strain is relaxed, the attention is diverted from his ailments, and the patient more or less completely recovers his normal health. But it is unjust to the patient to assume that because his symptoms disappear after the case has been settled, he must therefore have been deliberately shamming; and it is important to recognise this mental state as a weighty factor to be reckoned with in the investigation of all cases of this nature, and that this has been directly induced as a result of the shock of the accident.

THE MONTH.

Medical Registration in Queensland.

We have been requested to draw attention to the fact that, following the example of New South Wales, it has been resolved by the Queensland Medical Board that in future every applicant for registration shall, besides making the usual declaration of identity, furnish a recently taken photograph of himself, signed at foot with his name.

Digitized by Google

The Arbitration Court and the Milk Supply.

At the last monthly meeting of the New South Wales State Children's Relief Board the following resolution was carried:—"That the chief boarding-out officer write to the Registrar of the Arbitration Court asking for information regarding the proposed alteration in the method of delivering milk, and pointing out the danger to the health of infants, which, in the opinion of the Board, is likely to result if the determination to deliver milk only once a day on two days a week is carried into effect." We are very glad to note that this matter has come under the cognisance of the State Children's Relief Board. As pointed out in Dr. Mackellar's report, the infantile mortality in Sydney is appalling, and if the supply of fresh milk is to be stopped on two days a week to satisfy the demands of socialist agitators, there is every prospect of the rate of mortality being seriously increased.

The Brisbane Hospital Finances.

From the statement of the honorary treasurer of this hospital, in the last annual report, it would appear that the income of the institution is likely to be seriously interfered with by reason of a concomitance of circumstances. The State has reduced the subsidy by 25 per cent., and the estimated loss to the Brisbane Hospital is upwards of £1500 a year. At the instance of the Auditor-General there has been diverted to the State Treasury the greater part of the money hitherto received under the head of police court fines. This means a loss of about £400 a year. An income tax has been imposed, and the effect of this upon philanthropy remains to be seen. The drought promises to increase the Brisbane Hospital butcher's bill by upwards of £1000 in 1903. These are conditions under which the committee have to face the year 1903. Numbers 1 and 2 operated upon their income in 1902 to the extent of £1000.

The Infectious Diseases Hospital in Melbourne.

The difficulty in providing for the upkeep of the Queen Victoria Infectious Diseases Hospital remains unsettled. The Minister for Public Health states that he is prepared to advise the Cabinet to contribute £800 per annum for five years towards the maintenance of the hospital on condition that the metropolitan municipalities should contribute twice the sum named. A conference of representatives of metropolitan municipalities has, however, determined to do nothing further in the direction of reopening the hospital for the reception of patients unless the Government contributes half the cost of the upkeep of the institution, which is estimated to run into about £5000 per annum.

Chloroform v. Ether.

In Adelaide a few weeks ago Dr. Ramsay Smith, City Coroner, when holding an inquest on a three months old child which had died at the Children's Hospital whilst under chloroform, contended that where ill-effects followed the use of ether or chloroform the proportion of such ill-effects was larger where the aid of ether was invoked. He added: "In view of these facts I venture to express the hope that the committee administering the affairs of this hospital will not make any regulation or recommendation regarding what anæsthetics are to be used by its staff, as some misguided hospital authorities and other people elsewhere show an inclination to do. Anything more pernicious in the way of hospital administration could scarcely be conceived; for it means, in plain terms, the adoption of a policy of saving the reputation of the hospital and the operator and the anæsthetist at the expense—I do not say risk, but actual expense—of patients' sufferings and patients' lives. It means that so long as the death of one patient under chloroform on the operating table is avoided ten patients may suffer or even die from the direct effects of ether if so be that they die in the wards and thus avoid the publicity of a coroner's inquest. If a patient should die within a few days after an operation the operator seems to experience a feeling of relief if the post-mortem examination shows that death was due to the ether administered; but I do not find that the coroner is informed or that ether appears in the hospital returns as the cause of death." A reply to Dr. Ramsay Smith was published in the *Adelaide Register* from Dr. H. Swift. He said that sudden deaths on the operating table from ether were most rare, whilst the proportion of patients who subsequently expired in their beds after inhaling ether was in no wise greater than when chloroform had been employed. Stating his own experiences, he said: "I have had, owing to my close connection with hospitals all my life, a considerable experience of the administration of both chloroform and ether, at one time using the former almost exclusively, but gradually my views have been altered, and now I use ether almost exclusively, my reason being that I consider ether, properly administered, as practically free from danger, whereas chloroform anæsthesia is never free." In conclusion, Dr. Swift noted the opinion arrived at by a committee of the British Medical Association who investigated

Digitized by Google

nearly 30,000 cases where ether and chloroform had been employed, and who reported that "in conditions of good health chloroform is very much more dangerous than other anæsthetics. In grave conditions chloroform still remains the least safe anæsthetic."

The Hobart Metropolitan Drainage Scheme Approved.

The Hobart ratepayers poll in connection with the metropolitan drainage scheme took place recently. The poll was necessary under the authorising Act, there being a provision stipulating that the consent of a majority of ratepayers polling should be obtained before the scheme could be undertaken. The advocates of the drainage scheme strengthened their position enormously when the septic tank system was added to the original proposal. The idea of pouring crude sewage into the harbour was repugnant to the vast majority of the people, and it is certain that had such a scheme been placed before the electors, it would have been rejected. The septic tank system, with the outfall at Macquarie Point, was adopted by the board, and it was on this plan that the poll was taken. The returning officer in announcing the result of the poll said that within a very short time Hobart would have a perfect drainage, and the reproach that was cast on the sanitation of the city would be for ever removed. The result of the poll was as follows:—

For the scheme	3268
Against	1240
Affirmative majority	2028

Hope for the Consumptive.

Not only in New South Wales are the poor consumptive patients treated with scant humanity by a section of the community, for the residents of Echuca have evinced a desire to rid themselves of the consumptive patients who have gone to that place for treatment in the sanatorium and in private residences. In pleasing contrast to this we note that another district of Victoria has shown a humane desire to assist sufferers towards recovery of their health. The Board of Public Health has forwarded one of its large tents and five small tents to the hospital at Amherst, near Talbot, for utilisation in the treatment of cases of consumption. This action is the outcome of a recent visit to Amherst by the chairman of the board. Dr. Gresswell on that occasion found that Dr. Featherstonhaugh, the hospital medical officer, Dr. Cunningham, the municipal health officer, and the committee of management of the hospital, were enthusiastically in favour of taking up as a specialty the treatment of consumption. They informed him of a number of notable instances of sufferers from pulmonary tuberculosis having recovered after residence in the district. .

The Austin Hospital for Incurables, Melbourne.

A circular appealing for help has been issued by the committee of the Austin Hospital for Incurables, which requests that the heads of business firms will bring the wants and necessities of this institution under the notice of their employees with a view to their contributing something towards assisting the committee to carry on its work. The institution is the only hospital for incurables in Victoria, and while the cost of maintenance is considerably below that of any other medical charity in the State, the expenditure is now exceeding the income at the rate of £2500 per annnm. Like the other charities in Victoria, this hospital is suffering from financial difficulties, and we hope that this appeal will meet with a ready response.

The Australian Natives' Association in Queensland.

The A.N.A. are making a forward movement in Queensland, and in view of the difficulty of securing medical officers they have approached the Queensland Branch of the British Medical Association with a request for a conference. This request, we learn, has been acceded to, but we sincerely hope that there the matter will end, and that the profession in Queensland will most seriously take to heart the lesson to be learnt from the action of the A.N.A. in Victoria, and also the determined attitude assumed by the New South Wales Branch of the British Medical Association in this matter. As we have pointed out on previous occasions, the A.N.A. have no claim whatsoever for medical attendance at club rates. In no sense of the word is this association a philanthropic one; it is a purely political organisation seeking to secure for a certain section of the native Australians municipal and political influence. The medical benefits are tacked on to make the association "go," and to give it some cohesion. To secure these benefits the medical profession is imposed upon by persons in good social and financial position, who degrade themselves by seeking medical attendance for themselves and families at the remuneration of threepence a week! Let the profession in Queensland follow the lead of New South Wales and decline to enter into any relations whatsoever with the A.N.A.

Digitized by Google

BRITISH MEDICAL ASSOCIATION NEWS.

PROCEEDINGS OF AUSTRALASIAN BRANCHES.

New South Wales.

THE annual meeting of the Branch was held at 121 Bathurst-street on Thursday, March 28th, at 8.30 p.m. Present: The President (Dr. G. E. Rennie) in the chair, and about 15 members.

The PRESIDENT explained that the members had been asked to come together that evening that the annual meeting might be formally inaugurated and the ballot papers handed over to the scrutineers, so as to allow them more time to do their work.

The HON. SECRETARY read the minutes of the last meeting, and these were confirmed.

The President then appointed Drs. F. W. Hall and F. J. T. Sawkins scrutineers, and Drs. A. Palmer and Stacy assistant scrutineers.

The ballot papers were then handed to the scrutineers, and the meeting adjourned till the following evening.

The adjourned annual meeting was held at the Royal Society's Room on Friday, March 27th, 1903, at 8.15 o'clock, Dr. G. E. Rennie, president, in the chair. There were 54 members present.

The PRESIDENT announced the election of the following members:—Drs. Barton, Kirkwood, Tudor-Jones, Kennedy, Little, Brandon, Blue, G. J. Lees, H. L. Willis, W. R. Dight, C. E. Marsden, C. D. Halcomb, A. Muscio. Nominated for election: Dr. R. R. Mackinnon, Warialda.

The HON. SECRETARY (Dr. Hankins) read the report of the Council and moved its adoption. Seconded by Dr. CARRUTHERS and carried.

REPORT OF COUNCIL.

GENTLEMEN,—The Council has much pleasure in presenting the report for the year ending 1902, and takes this opportunity of congratulating the members on the general prosperity of the Branch and the continued unity of the profession.

There were 9 general, 3 special, and 13 Council meetings held during the year, the attendances at all being satisfactory. A general meeting was held at the Stock Exchange, Newcastle, on October 30th, the new departure in holding a meeting of the Branch at a country centre being greatly appreciated by the local members, who entertained the visitors after the meeting.

A pleasing feature in the year's transactions is the large access of members. There were 67 elected during the year. Four members resigned and eight were removed by death (Drs. Charles Rorke, S. H. Schrader, A. M. Megginson, L. G. Mallam, Cotton D'Englesqueville, E. Fairfax Ross, L. F. Bucknell, R. Holmes and Margaret White). There are now 462 members on the roll, being an increase of 56 on the previous year.

Sir James Graham, Dr. E. J. Jenkins and Dr. Jarvie Hood were appointed to represent the Branch at the annual meeting of the parent Association at Manchester.

Owing to the new constitution of the Home Association a difficulty arose as to the collection of the members' subscriptions; but upon the representations of the hon. treasurer, showing how inconvenient it would be for members to send portion of their subscription to England and the remainder to the local hon. treasurer, it has been decided by the parent Association to let the previous method continue, so that members will pay their subscriptions as before direct to the hon. treasurer of the Branch.

During the year a great deal of correspondence has been received and dealt with on the question of the Australian Natives' Association, and it is gratifying to know that the profession has taken a firm and satisfactory stand in the matter, with the result that at the present time the list of medical officers to that organisation has not materially increased.

A conference was held with the Balmain Dispensary on the question of the A.N.A. being affiliated to that institute. Owing to certain legal difficulties the institute was given 12 months to make the necessary arrangements to sever itself from the A.N.A.

A special general meeting was held on the 10th October, 1902, for the purpose of discussing the need of forming a Lodge Practitioners' Defence Fund. Dr. Furnival submitted a resolution to the meeting, but it was resolved to submit the whole question to a vote of the profession. The vote was taken, and the result was reported to a meeting, when it was decided to establish the fund.

The subject of medical fees for examinations in connection with life insurance has been before the Council on several occasions. A special general meeting was held in October, 1902, when the question was fully discussed and again referred to the Council for further consideration. (The final recommendations were approved by a special meeting held on Friday, 13th February, 1903.)

The allowance for travelling expenses to medical witnesses at coroners' inquests gave rise to a large amount of correspondence during the year, and the medical adviser to the Government was approached, with the result that fresh regulations have been issued allowing of an increased rate of payment.

At the instigation of the Council the police authorities have in several instances during the past year insisted upon the discontinuance of medical titles assumed by persons having no right to the same.

At the invitation of the Council a conversazione was held in the Great Hall of the Sydney University on the 24th June, 1902; the attendance was very large and the function proved in every way a great success. His Excellency Sir Harry Rawson and suite were present, also his Excellency the Admiral and Lady Beaumont, Brigadier-General Finn, and the Chancellor (Sir Normand MacLaurin).

His Excellency the State Governor has been pleased to recognise the Branch as a public body at all levees and public functions.

The hon. treasurer's statement shows a credit balance of £115 5s 5d and the *Australasian Medical Gazette* account a credit of £7 17s 8d.

The list of papers and exhibits, together with the balance sheets and attendance of members of the Council at Council meetings, is appended to this report.

G. E. RENNIE, President.
G. T. HANKINS, Hon. Secretary.

PAPERS READ AT THE GENERAL MEETINGS, 1902.

On "The Diagnosis of Erythromelalgia and Raynaud's Disease," with living exhibits.—Dr. R. SCOT SKIRVING.

"The Advantage of Obtaining Urine Separately from each Kidney in the Diagnosis of Urinary Disease and the method of so doing."—Dr. MAITLAND.

"The Choice of an Anæsthetic for the Adenoid Operation."—Dr. ARTHUR.

"Meralgia Paræsthetica."—Dr. G. E. RENNIE.

Digitized by Google

"Case of Cerebral Hydatid," with further notes of the case previously reported by us.—Drs. RENNIE and CRAGO.

"Complete Prostatectomy (exhibits) and the Bottini Operation."—Dr. H. C. HINDER.

"Case of Hydatid of Brain" (living exhibit).—Dr. FIASCHI.

"Case of Hypertrophied Scar of Neck treated by X Rays" (living exhibit). "Case of Depressed Nose treated by Paraffin Injection" (living exhibit).—Dr. HERSCHEL HARRIS.

Paper, with demonstration: "Influenza and its Bacillus."—Dr. W. CAMAC WILKINSON.

Notes of Cases.—Dr. MAITLAND.
(*a*) "Strangulated Hernia, with Excision of 18 inches of Gangrenous Gut."
(*b*) "Appendicitis in a Hernial Sac."
(*c*) "A Case of Calculus Pyonephrosis in a Movable Kidney—Nephro-ureterotomy."
(*d*) "Removal of Villous Papilloma of the Bladder."

"Notes on Pylorectomy."—Dr. A. MACCORMICK.

"Case of Tumour of the Spinal Column with Necropsy."—Dr. SINCLAIR GILLIES and Dr. FLASHMAN.

"Case of Removal of Fibroid Tumour together with Gravid Uterus."—Dr. J. L. BEESTON.

"On the Incidence, Symptoms and Treatment of Strangulated Hernia in Elderly People."—Dr. C. MACLAURIN.

"Hydro-Peritoneum in Pelvic Disease."—Dr. F. BARRINGTON.

Lantern Exhibition of Selected Skiagrams.—Dr. L. H. HARRIS.

"Administration of Anæsthetics in Abdominal Surgery."—Dr. SAWKINS.

"Note on Two Cases of Death under Ether."—Dr. JAMIESON.

"Notes on a Case of Raynaud's Disease."—Dr. NEWMARCH.

A paper on "Atrophic Rhinitis."—Dr. KIRKLAND.

A phonating apparatus and three patients using the same after laryngectomy.—Mr. HANKINS.

Patient suffering from Raynaud's disease.—Dr. NEWMARCH.

Patient suffering from deformity of the nose.—Dr. KIRKLAND.

Patient suffering from skin disease.—Dr. F. A. BENNET.

Growth removed from apex of orbit of a child of three years, with preservation of globe.—Dr. POCKLEY.

A boy who had been operated upon two years ago for hydatid cyst of the brain.—Drs. RENNIE and CRAGO.

Uterus removed for a ruptured pregnancy, occurring in stump left after removal of a former ruptured tubal pregnancy.—Dr. HINDER.

Dissection of temporal bone.—Dr. RUSSELL NOLAN.

Notes and exhibits from the Lewisham Hospital—
(*a*) Calculus removed from a ureter.
(*b*) Excision of a congenital sacro-coccygeal tumour from a woman.
(*c*) Sarcoma of the humerus removed by the inter-scapulo-thoracic amputation.
(*d*) Excision of the cæcum for malignant disease.—Dr. MCKAY.

Hydatid of rectum; lipoma of Fallopian tube.—Dr. WORRALL.

Specimen of cysticercus echinococcus multilocularis.—Dr. W. J. MUNRO.

Foreign body as removed from the ear by a new method.—Mr. HANKINS.

Case of lichen pilaris.—Dr. F. A. BENNET.

ATTENDANCE OF COUNCILLORS AT COUNCIL MEETINGS.
(There were 13 meetings held.)

Dr. Rennie	attended	13	meetings
Dr. Crago	,, ...	13	,,
Dr. Hankins	,, ...	13	,,
Dr. Worrall	,, ...	12	,,
Dr. Fiaschi	,, ...	11	,,
Dr. Dick	,, ...	11	,,
Dr. Jamieson	,, ...	9	,,
Dr. Newmarch	,, ...	8	,,
Dr. Pockley	,, ...	9	,,
Dr. Brady	,, ...	7	,,
Dr. MacCormick	,, ...	5	,,
Dr. Hinder	,, ...	7	,,
Dr. Foreman	,, ...	5	,,
Dr. Beeston	,, ...	3	,,

RESOLUTIONS CARRIED AT THE GENERAL MEETINGS, 1902.

1. Dr. FURNIVAL moved—"That the establishment of a defence fund is desirable for the protection of members who may suffer financially through resigning medical contract appointments at the instigation of the Branch, and that a committee be appointed to draw up a scheme for consideration at a future meeting."

2. Dr. COLLINS moved—"That it is desirable that a scale of fees for medical examinations for life assurance be determined on, and that the Council be requested to formulate a scheme for consideration at a future meeting."

The Hon. Treasurer (Dr. Crago) read the statement of accounts of the Branch and the balance-sheet of the *Australasian Medical Gazette*, and moved their adoption. Seconded by Dr. Hankins and carried.

THE "AUSTRALASIAN MEDICAL GAZETTE."

To the Council of the N.S.W. Branch of the British Medical Association.

I have the honour to report that during the year 1902 the A. M. GAZETTE has continued its useful career. Owing to an increase in the number of pages of literary matter—equalling 86 pages for the year—and a considerable increase in the advertising columns, the cost of printing has been much heavier than usual; the amount of the printing account for 1902 having been £848 18s 10d, as against £678 17s for 1901, or an increase of £170. An expense of about £100 has been incurred in commission for new advertisements and in payments to contributors. In June a change was made in the printer, which led to a saving of from £10 to £12 per month in the cost of printing the GAZETTE.

Many expressions of approval have been received of the changes effected in the GAZETTE by the present editor. Although the funds of the GAZETTE have been rather limited towards the end of the year, necessitating a loan from the Branch funds in order to liquidate some outstanding claims, still the prospects for 1903 are particularly good, and the end of the ensuing year should show a much more satisfactory balance-sheet than the present one.

W. H. CRAGO,
Manager *A.M.G.*

December 31st, 1902.

Digitized by Google

STATEMENT OF RECEIPTS AND EXPENDITURE FOR THE YEAR ENDING DECEMBER 31st, 1902.

Receipts.				Expenditure.			
1902. January 1.	£	s.	d.	1902.	£	s.	d.
To Balance from 1901	203	11	6	By *British Medical Journal*	447	11	0
,, Subscriptions	908	16	0	,, Cost of Draft on London	2	13	10
,, Interest	9	17	6	,, *Australasian Medical Gazette*	330	10	0
				,, ,, ,, ,, Loan ..	100	0	0
				,, Rent—Royal Society	14	0	0
				,, Printing	29	9	3
				,, Stamps	30	3	2
				,, Assistant Librarian	20	0	0
				,, Refreshments	13	0	0
				,, Library Shelving, Exchange, Bank Charges, and Sundry Office Expenses	19	12	4
				,, Balance	115	5	5
	£1122	5	0		£1122	5	0

Examined and found correct.
F. W. HALL,
FRED. J. T. SAWKINS, } Auditors.
March 5th, 1903.

W. H. CRAGO, Hon. Treasurer.

"AUSTRALASIAN MEDICAL GAZETTE."

BALANCE-SHEET FOR THE 12 MONTHS ENDING DECEMBER 31st, 1902.

	£	s.	d.		£	s.	d.
To N.S.W. Branch B.M.A.	645	14	10	By Goodwill	1150	0	0
,, Sundry creditors	136	3	4	,, Sundry debtors	875	18	11
,, Advertisements' revenue account, unexpired contracts for 1903	307	11	7	,, Cash	7	17	8
,, Reserve for bad debts	90	0	0				
,, Balance	854	6	10				
	£2033	16	7		£2033	16	7

Dr. PROFIT AND LOSS ACCOUNT. Cr.

1902—December 31.	£	s.	d.	1901—December 31.	£	s.	d.
To Printing account	848	18	10	By Balance	849	4	11
,, Salary account	78	0	0	1902—December 31.			
,, Stamp account	51	8	5	By Subscriptions' revenue account ..	789	10	5
,, Commission account	61	17	6	,, Advertisements' revenue account ..	691	10	11
,, Exchange account	0	10	4				
,, Rent and gas account	47	14	11				
,, Discount account	69	5	2				
,, Bad and doubtful debts	77	3	11				
,, General expenses account	91	0	4				
,, Editor	100	0	0				
,, Manager	50	0	0				
,, Balance	854	6	10				
	£2330	6	3		£2330	6	3

F. W. HALL,
F. J. SAWKINS, } Auditors.
March 5th, 1903.

(Signed) W. H. CRAGO, Hon. Treasurer.

The President then read his address on "The Physiology of Voluntary Movements." (See page 135.)

Professor Anderson Stuart moved a vote of thanks to Dr. Rennie for the very able paper he had read. It was a paper that required careful reading, and as, of course, it would be published in the *Australasian Medical Gazette*, they would all have the opportunity of studying it. As far as he could judge it was an admirable address.

This was carried with acclamation.

Digitized by Google

NEW SOUTH WALES MEDICAL BENEVOLENT FUND.

Dr. MAITLAND read the report and balance-sheet for the year, which was adopted.

Dr. CRAGO proposed that the following gentlemen be the Committee of Management for the year:—Drs. Fiaschi, Hall, Macdonald Gill, Faithfull (hon. treasurer), and Maitland (hon. secretary).

THE TREASURER IN ACCOUNT WITH THE NEW SOUTH WALES MEDICAL BENEVOLENT FUND.

DR.

1903.	£	s.	d.
Balance brought forward 31st March, 1902	48	18	0
Subscriptions received from 31st March, 1902, to 31st March, 1903	57	19	0
	£106	17	0
At Deposit in Savings Bank of New South Wales, as per Bank Pass Book, with interest added to the 31st December, 1902	121	17	10
Balance to credit in current account in the Commercial Banking Company of Sydney, Bathurst-street Branch ..	90	2	6
	£212	0	4

CR.

1903.	£	s.	d.
Money disbursed to various deserving cases, as decided by the Committee, from 31st March, 1902, to 31st March, 1903 ..	12	10	0
Stamps	1	0	6
Printing	1	2	6
Exchange on cheques	0	10	6
Bank fees	0	10	0
A. Thompson	1	1	0
Balance at credit, as per Bank Pass Book ..	90	2	6
	£106	17	0

E. & O.E.—27th March, 1903.

Audited and found correct.
W. McMURRAY.

R. L. FAITHFULL, Hon. Treasurer.
H. L. MAITLAND, Hon. Secretary.

The President announced the result of the elections for office-bearers for the ensuing year:—

President, Dr. Brady; vice-president, Dr. MacCormick; councillors, Drs. Hankins, Crago, Rennie, Dick, Beeston, Worrall, Fiaschi, Hinder, Abbott, Pockley, Newmarch and Foreman.

A vote of thanks was accorded to the scrutineers, Drs. Hall and Sawkins, and the assistants, Drs. Palmer and Stacy.

Drs. F. W. Hall and Sawkins were elected auditors for the ensuing year.

THE NEW SOUTH WALES LODGE PRACTITIONERS' FUND.

The Hon. Sec. announced that the committee appointed by the Branch had drawn up certain rules which placed the management of the fund in the hands of the Council of the Branch and that the Council had agreed to this arrangement.

The rules are as follow:—

1. The name to be the N.S.W. Lodge Practitioners' Defence Fund.
2. The Fund to be raised hy annual subscriptions of one guinea and upwards and donations.
3. The object, to render financial assistance when necessary to medical practitioners who may resign club appointments at the instigation or with the approval of the N.S.W. Branch B.M.A.
4. The Fund to be in the hands of three trustees, one of whom is the hon. treasurer of the Branch, the other two to be elected at the annual meeting of the Branch and to hold office for three years.
5. Other rules applying to trustees to be those of the N.S.W. Medical Union (19, 20 and 21).
6. The Council of the Branch to investigate and decide upon the cases requiring assistance from the Fund.
7. The trustees to pay such sums as have been decided upon by the Council upon the written order of the President of the Branch.
8. All cheques to be signed by two trustees, one of whom is the hon. treasurer of the Branch.
9. The auditors to be the auditors of the Branch.

Dr. HANKINS proposed, and Dr. BRADY seconded—That Drs. Furnival, Thomas, and Crago be the trustees of the Fund. Carried.

Dr. RENNIE then introduced the newly-elected President, Dr. BRADY, who thanked the members for having elected him President.

Council Meeting.

The Council met at the Association Rooms on Friday, April 3rd, 1903. Present: Dr. Brady (president) in the chair, Drs. Rennie, Crago, Hankins, Worrall, Fiaschi, Pockley, Abbott, Dick, Hinder and Newmarch.

New member elected: Dr. Mackinnon.

Resolved—That Dr. Hankins be re-elected hon. secretary for ensuing year, and that Dr. Crago be re-elected hon. treasurer for ensuing year.

Resolved—That Dr. Rennie be reappointed editor *A.M.G.* for ensuing year, and Dr. Crago manager of *A.M.G.* for ensuing year, and that Dr. Worrall be authorised to countersign all cheques on account of *A.M.G.*

Resolved—That a vote of thanks be accorded to Mr. A. W. Green for his services as honorary assistant secretary during the past year.

Digitized by Google

Victoria.

THE ordinary meeting was held on Wednesday, March 25th, 1903. Present: Dr. Gresswell (in the chair) and 31 members.

Dr. W. Fox read a paper on "The Action of Electric Currents of High Frequency and High Potential on Chronic Pulmonary Tuberculosis." (To appear in a future issue.)

At the conclusion of the paper Dr. GRESSWELL said, on behalf of the Branch, he wished to express to Dr. Fox a recognition of his very valuable contribution to science that evening. They all felt under great obligation to Dr. Fox for the trouble he must have taken to arrange for the very fine display they had enjoyed, and he felt that he must be complimented on the remarkable success of all of his experiments, which had been conducted without a single hitch. The possibilities of these wonderful oscillating currents were great, and he thought that in justice to the subject and on account of the lateness of the hour that the discussion might be adjourned to the next meeting.

Dr. BRETT was prepared to move that the discussion be adjourned, but before doing so he would like to observe that he was personally interested from the view of the pathologist. He was not quite sure that it had been decided what was the curative action of these currents. In the experiments made by Dr. Chisholm Williams that investigator declared that he thought the tubercle bacilli were destroyed by their own overgrowth; the pabulum was not enough to maintain them, and the increase of their own toxines did the rest. Again, tubercular inflammation was induced, necrosis set up, and then the necrosed tissue thrown off. The cases reported were no doubt very wonderful, and the results seemed too good to be true. He thought that the time which had expired was too short for scientists to accept a final expression of opinion, and he advised caution.

Dr. Fox stated that the subject was inexhaustible. The peculiar radiations of these oscillatory currents were common to the X-rays, sunlight, the arc lamp and the iron electro-lamp. They had no real proof that the effects were produced by ultra violet radiation; it might even have something to do with the ultra red, and to consist of lengths of long or short waves. They were not dealing with ordinary electricity, but something quite new. He found the effects of this treatment to be at first rather an increase in severity of the symptoms, but this rapidly gave way to improvement all round. Digestion and respiration improved, temperature disappeared, and the patient put on weight. It was interesting to follow the decided decrease in the expectorated bacilli. It seemed to him quite possible that the explanation of therapeutic effect might be that a healthy stimulus was given to cell growth, and the resisting power and the vitality of the individual increased so as to throw off the disease and overcome the invasion of the bacilli.

The motion to postpone the discussion having been then put, the members, on the invitation of the President, adjourned to the Vienna Café.

Queensland.

A GENERAL meeting of the Branch was held on Friday, April 5th. Dr. G. H. Hopkins (President) in the chair, with an attendance of 14 members.

Dr. HAWKES exhibited: — 1. Gallstones. 2. Eye removed for sarcoma. 3. Large postnasal polyp, which the patient had unsuccessfully attempted to snare.

Dr. McLean was declared elected and Dr. O'Brien nominated to membership of the Branch.

A letter was read from the general secretary of the Parent Association withdrawing the former circular and empowering the Branch secretary to collect subscriptions until June, and stating that after that date they would be collected by the general secretary; also one from Dr. Richards, of Mt. Morgan, with reference to the attitude of the Branch towards the A.N.A. A letter was read from the secretary of the A.N.A. asking for a conference with the Branch: it was voted that the request be acceded to.

The discussion upon Dr. Stewart's paper was postponed.

Dr. HAWKES read a paper upon the "Diagnosis and Surgical Treatment of Gallstones." (To appear in a future issue.)

South Australia.

THE monthly meeting was held on March 26th, 1903, at the University, at 8 p.m. Present: Dr. A. A. Hamilton (president) and 27 members.

Exhibits were shown by Drs. Verco, Watson, Marten and Reissmann.

Dr. MARTEN showed a lady, *æt.* 62 years, upon whom he had performed a gastrectomy for a growth in the neighbourhood of the pylorus. The patient made an excellent recovery. He also showed portion of a stomach and the pylorus, which were successfully removed by gastrectomy.

Drs. MARTEN and NEWLAND showed a myeloid epulis of upper jaw, removed from a young man of 24 years by the former, and a microscopical specimen of the same growth prepared by the latter.

Dr. J. A. G. HAMILTON showed a fibroid tumour of uterus which had undergone complete calcareous degeneration. The tumour was removed by supra-vaginal hysterectomy from a woman *æt.* 47, who had suffered for 15 years from hæmorrhage and more recently from considerable pelvic pain.

Minutes of last meeting were read and signed.

Dr. J. A. G. HAMILTON read a short paper on a new operation for nymphomania.

Dr. NEWLAND then read an interesting paper on "Finsen Light," which was followed by a paper by Dr. J. C. VERCO on a case of "Myelopathic Albumosuria."

New South Wales Medical Union.

THE annual meeting of the New South Wales Medical Union was held at 121 Bathurst-street on March 25th, 1903. The President, Dr. F. H. Quaife, took the chair. The Chairman announced that the number of gentlemen nominated as office-bearers equalled the number of vacancies, and that therefore no ballot was necessary. Trustees: Drs. F. H. Quaife, T. Fiaschi, W. H. Coutie. Councillors: Drs. A. J. Brady, C. U. Carruthers, P. J. Collins, R. L. Faithfull, J. Foreman, S. Jamieson, G. L. Mullins, B. J. Newmarch, G. E. Rennie, P. M. Wood. Hon. treasurer: Dr. W. H. Crago. Hon. secretaries: Drs. Jarvie Hood, J. M. Gill. Auditors: Drs. F. W. Hall, C. Gordon MacLeod.

The Hon. Sec. (Dr. GILL) read the annual report:—

TENTH ANNUAL REPORT.

The Council has much pleasure in reporting to the members further steady progress in the affairs of the Union. Two hundred and seventy-eight members paid the annual subscription, as against 275 in the previous year; 19 have dropped out from various causes, but 22 new members have joined, so that although our membership is being well maintained we are not increasing in numbers as we should.

The New South Wales Branch of the British Medical Association has some 460 members—nearly 200 more

Digitized by Google

than we have. It is to be observed that a considerable proportion of the junior members of the profession who have recently commenced practice are not members of our Union. These gentlemen frequently do not realise the necessity of joining the Union till it is brought home to them by some threatened legal action. It is, therefore, the duty of all members of the Union to point out to those gentlemen who are not members the advantages of joining. The Council has to record with regret the deaths of Drs. Rufus Bell, L. F. Bucknell, D. Doolan, L. G. Mallam, A. M. Megginson, Chas. Rorke, and E. Fairfax Ross.

The local hon. secretaries have continued to perform their duties in a satisfactory manner. The Council, fortunately, has not had to assist financially any member this year. Several cases have come before the Council, but, happily, litigation has been avoided in each. In two cases it was resolved to obtain legal advice before deciding upon the course of action to be taken.

The treasurer's statement shows the funds in hand to be £2179, an increase of £331 on the previous year. The advisability of reducing the annual subscription was fully discussed at the last annual meeting, when those present were unanimously of opinion that any reduction was premature, and that a much larger sum should be accumulated before any such proposal should be entertained.

Seven Council meetings have been held during the year. The number attended by each member was as follows:—

Dr. Brady	5	Dr. Jarvie Hood	1
,, Carruthers	4	,, Fiaschi	4
,, Collins	4	,, Jamieson	3
,, Coutie	1	,, Mullins	4
,, Crago	7	,, Newmarch	3
,, Faithfull	4	,, Quaife	5
,, Foreman	4	,, Rennie	4
,, Gill	7	,, Wood	4

The report was unanimously adopted.

Dr. W. H. Crago, hon. treasurer, submitted his financial statement.

NEW SOUTH WALES MEDICAL UNION.

Statement of Receipts and Expenditure for the Year ending February 28th, 1903.

March 1, 1902. RECEIPTS.	£	s.	d.
To Balance from previous year	1848	15	10
,, 22 Entrance Fees at 21s	23	2	0
,, 278 Subscriptions at 21s	291	18	0
,, Exchange added	1	7	0
,, Interest	52	11	4
	£2217	14	2

EXPENDITURE.	£	s.	d.
By Printing	13	4	1
,, Assist. Secretary	10	0	0
,, Rent	5	0	0
,, Stamps	5	17	0
,, Exchange	2	0	6
,, Bank charge and cheque book	0	17	6
,, Sundries	0	17	3
,, Balance	*2179	17	10
	£2217	14	2

*Savings Bank of New South Wales, £600; Union Bank of Australia, at fixed deposit, £750; ditto, at current account, £50 18s 5d; Bank of New South Wales, £400; inscribed stock, £300; Government Savings Bank, £78 11s 8d; petty cash, 7s 9d—£2179 17s 10d.

W. H. CRAGO, Hon. Treasurer.

SINCLAIR GILLIES, ARTHUR A. PALMER, } Auditors.

March 5th, 1903.

This was adopted, and there being no other business the Chairman declared the meeting closed.

Presentation to Dr. Hankins.

During the annual meeting of the New South Wales Branch of the British Medical Association the retiring president, Dr. G. E. Rennie, on behalf of the members of the Branch, presented Dr. Hankins, the honorary secretary, with a cheque for £150.

In making the presentation Dr. Rennie said that in 1898, when he resigned the position of honorary secretary, Dr. Hankins was appointed his successor, and he had been re-elected from year to year ever since. Those on the Council could best appreciate the large amount of correspondence and the heavy work which now falls to the lot of the honorary secretary. Dr. Hankins had made an ideal secretary, and they had all felt that there should be some recognition of the work which he had carried on so admirably and so long. On behalf of the members of the Branch he had much pleasure in handing to Dr. Hankins a cheque for £150 as a token of the high esteem in which he was held.

Dr. Hankins, on rising, said: This is very sudden, almost too sudden. I have received no warning as to what was to occur, and I am utterly unable to express my feelings, because I am uncertain just now what they are. I know I ought to be very greatly elated, but for the moment I am conscious only of acute distress. I shall be all right directly. It is surely honour enough for one night to know, as I happen to know, that you have placed me at the head of the poll in the election of the Council. That was, of course, owing to the fact that I had held the official position of honorary secretary for some years, and a proof that, on the whole, I had performed the duties to your satisfaction. But that so large a number of my supporters should have been willing to back their opinion by planking down their dollars is a much more personal matter, and touches me very deeply. Most of my old friends present know that the enviable talent of making money is one which has been denied me. I am not going to lodge complaints on that score. Moreover, there have been compensations. My life in Sydney for the last 22 years has been a pleasant and a happy one, and of the circumstances conducing to that happiness not the least may be reckoned the uniform good-fellowship of my brother practitioners. It hardly

Digitized by Google

needed such a substantial proof as you have furnished to-night to convince me of your goodwill; but the fact that I am thoroughly assured of it makes it an easy matter to accept your handsome present, which I now do with many thanks.

OBITUARY.

Dr. Morgan Thomas, Adelaide, S.A.

Dr. Morgan Thomas, who died last month, arrived in Adelaide from Wales in 1851. He was then 33 years old. He started the practice of his profession in Unley. Two years later he returned to England for business reasons. He next practised at Nairne (not far from Adelaide) for several years. Dr. Thomas was appointed first house surgeon at the Adelaide Hospital, and served in that capacity under Drs. Nash, Gosse and Moore, who were successive Colonial Surgeons. He left the hospital to practice for a few years in Adelaide. He retired in the early sixties. His bent, deformed frame, supported by a stick, was well known in the city. The doctor was a familiar figure to habitués of the York Hotel, where he dined regularly for many years. Several years ago the deceased inherited landed property in Wales, but the bulk of his fortune was gained as the result of judicious investments in South Australia. Some of his banking investments failed him, or his estate would have presented much larger proportions. He was very devoted to the Public Library. Dr. Morgan Thomas was a widower, his wife having died when he was in practice at Nairne. He left no children. Dr. Thomas was very wealthy. His estate has been sworn at over £90,000. About £16,000 is left to private individuals, and the remainder, amounting to over £65,000 after the payment of probate duty, has been left to the Public Library, Museum, and Art Gallery. This munificent bequest has only twice been exceeded in the history of the colony. The deceased was 85 years old at the time of his death.

William John Walker, M.B., C.M. (Edin.), 1891, Port Pirie, S.A.

We regret to record the death of Dr. W. J. Walker, which took place after a long and trying illness at Port Pirie on March 28th. His death, although not unexpected, caused deep regret. He took a keen interest in matters pertaining to the welfare of the town, although during late years the state of his health had prevented him from taking an active part. Dr. Walker was the son of Captain Walker, of Portland Ward, Port Adelaide, and a native of the chief seaport. He was born in 1868, and received his early education in the old grammar school conducted by Mr. A. Martin. There he won an exhibition valued at £30, tenable for three years, and went to St. Peter's College, where he secured the Farrell Scholarship of £50 for three years. He matriculated when 15 years of age, and later on won a university scholarship of £60, available for three years. He obtained his B.A. degree in 1885, and in the following year he won the South Australian Scholarship, which provided him with £200 a year for four years to continue his studies in the mother land. He left for England in 1887 with the intention of going to Cambridge for his M.A. degree, but decided to study medicine, and went to Edinburgh University. At that seat of learning Dr. Walker gained the Junior Aitken-Carlisle and the Senior Aitken-Carlisle Scholarships in successive years, besides winning seven medals. He secured his M.B., C.M. degrees with honours in 1891, and remained in England for a few months. In 1892 he came back and settled at Port Pirie. He quickly won a name for himself in the northern port, and soon had a large practice. Dr. Walker has left a widow and one son.

Richard Ryther Steer Bowker, M.D. (St. And.), F.R.C.S. (Eng.), M.R.C.P. (Lond.), L.S.A. (Lond.), M.L.C.

By the death of the Hon. Dr. Bowker, which took place at his late residence, "Avoca," Darling Point, Sydney, on Friday, 3rd inst., the medical profession in New South Wales has lost one of its oldest and most distinguished members.

He was born at Campsall, in Yorkshire, England, on August 30th, 1815, so was in his 88th year. His father was the late Thomas Dawson Bowker, Esquire, of Hatfield, and his mother's maiden name was Elizabeth Steer, of Temple Belwood, Isle of Axholme. He commenced his medical education as an apprentice at the Nottingham General Dispensary at the age of 16, and took his M.R.C.S. (Eng.) and L.S.A. in 1838. In the following year (1839) he graduated M.D. of St. Andrew. After practising for some years at Bingham, in Nottinghamshire, he made two voyages to New South Wales as medical superintendent of an immigrant ship, and settled for a time at Newcastle, N.S.W., but afterwards went to the East Indies for purposes of research, returning to Newcastle in 1853, where he practised till 1874, when he removed to Sydney. He visited England in 1854, when he obtained his F.R.C.S. (Eng.), and the Extra-Licentiateship of the Royal College of Physicians of London (entitling him to take up the M.R.C.P. on abandoning any pecuniary interest in medicines, which he did in 1882). During his visit to England he made warm friendships with the late Mr. George Critchett and the late Sir William Bowman, which lasted till severed by death. He built up a very large practice at Newcastle, his reputation spreading to the northern districts of the State and to Queensland, whence large numbers of patients visited him, as well as many from Sydney. For many years, before the days of specialists, the late Dr. Bowker enjoyed the reputation of being the chief ophthalmic surgeon in the State, and was very successful in cataract operations. In 1874 he came to Sydney and took up his residence at "Avoca," Darling Point, practising at consulting rooms in town, and immediately acquired a very large practice. Dr. Bowker did not associate himself much with the members of the profession nor take any part in the local medical societies, but his gentle, courteous manner to his patients endeared him to them to such an extent that most of them simply adored him. As a member of the Legislature he introduced one or two medical bills, which, however, did not become law. He took a very active part some years ago in trying to improve the public school buildings in the way of largely increasing the cubic space per head. He was a man of a retiring disposition, always a student, a good French linguist, and a fair classical scholar. He found relaxation in chess, sporting, and horseracing, and always made a practice of taking one week-day in each week as a holiday. His services were freely given to the sick regardless of pecuniary remuneration, and the gratuitous performance of a cataract operation would at all times claim his attention in preference to seeing any number of paying patients. About two years ago he had some slight cerebral thrombosis, which was followed a few months later by prostatic trouble and pyelitis, but he was only confined to his bed for about three weeks prior to his death. His wife predeceased him by over 20 years. He has left six sons and three daughters. Four of the sons are members of the medical profession. The funeral took place at Paterson on April 6th, in the presence of a large and representative gathering.

Digitized by Google

CORRESPONDENCE.

London.

(FROM OUR OWN CORRESPONDENT.)

The Health of London—St. Bartholomew's Hospital—The New Principal of Edinburgh University—The Hunterian Oration—King Edward's Hospital Fund.

DR. SHIRLEY FORSTER MURPHY, Medical Officer of the London County Council, has had his annual report on the health of London for 1901 issued in book form. The population of the administrative county of London, estimated to the middle of the year 1901, was 4,544,983. As regards density of population, the metropolitan borough of Southwark had the largest number of persons per acre, viz., 182. The greatest density of population hitherto attained by any sanitary district in London since 1811 was 241 persons per acre—the number returned for St. Luke in 1861. It must be noted, however, that if the density of population were calculated for smaller areas than those of the metropolitan boroughs some of them would be found to have a larger number of persons per acre than 182. For instance, although the average population-density in Southwark was 182, the number of persons per acre in the Borough-road registration sub-district (one of the areas comprised in the metropolitan borough of Southwark) was 266. Dr. Murphy's report brings out the satisfactory fact that a considerable improvement is taking place in the housing of the people. Since the previous census the total number of tenements of less than five rooms has diminished, and the diminution is specially marked in the case of tenements of one or two rooms. The number of persons occupying tenements of one room has considerably decreased, while the number occupying tenements of two rooms is but slightly increased; the main increase is confined to that portion of the population occupying three and four rooms. In the case of over-crowded tenements, both their total number and the total number of persons occupying them show a percentage reduction of from 19·7 per cent. to 16 per cent. The number of marriages during the year was 40,010, giving an annual rate of persons married of 17·6 per 1000. Among the married males, 4·4 per cent. were under 21 years of age, and among the females 15 per cent. The number of births registered was 131,278, giving a birth-rate of 29·0 per 1000 living per annum. This is the lowest birth-rate recorded in London since civil registration began. The total number of deaths amounted to 77,663, giving an annual death-rate of 17·1 per 1000 living. This rate is lower than in the case of any of the other large centres of population in England. The deaths of children under one year of age numbered 19,412, being in the proportion of 148 per 1000 births. The number of deaths from the principal epidemic diseases was 10,107, giving a death-rate of 2·22 per 1000. Small-pox accounted for 229 deaths, equal to a rate of 0·051 per 1000. Cancer was credited with 4203 deaths, the corrected annual average for the preceding 10 years being 3843.

At a meeting of the Special Appeal Committee of the Governors of St. Bartholomew's Hospital held at the Mansion House on January 19th, the Lord Mayor being in the chair, the following sensible and practical resolution was unanimously carried:—"That having regard to criticism upon the proposed appeal for the enlargement of St. Bartholomew's Hospital, based on inaccurate information, a committee be appointed to report (1) whether it is desirable in the public interest, and on financial grounds, to retain St. Bartholomew's Hospital on its present site; (2) in the event of the retention of St. Bartholomew's Hospital on its present site, whether any better scheme of rebuilding than that suggested by the governors can be devised; (3) upon any other matters affecting the hospital that the committee may think it desirable to enquire into. And that such committee consist of 15 members, nine to be nominated by the Lord Mayor and six by the treasurer of the hospital; and that the treasurer and the Lord Mayor be *ex officio* members of such committee." The hospital has recently incurred adverse criticism on the part of persons who have not been in possession of knowledge either of the affairs of this particular institution or of the details concerning hospital administration in general. A strong committee such as that suggested by this resolution will review the whole situation, and be able by-and-bye to put before the public trustworthy information based upon an exhaustive enquiry into the facts.

A meeting of the Curators of Patronage was held in the Court Room on the 19th of January, when it was unanimously agreed to appoint Sir William Turner as successor to Sir William Muir, the late Principal of the University. Sir William Turner was born in 1832 at Lancaster. He studied medicine at St. Bartholomew's Hospital, and is a graduate of the University of London. In 1854 he was appointed senior demonstrator of anatomy in the University of Edinburgh, and in 1867 he succeeded Professor Goodsir in the chair. He has rendered good services to the University during close upon half a century, and has represented it on the General Medical Council since 1873. In 1898 he was elected president of that body. He was created a knight in 1886, and in 1901 he received the honour of K.C.B. Sir William Turner has been succeeded in the anatomy chair by Dr. D. T. Cunningham, a graduate of Edinburgh, who is at present Professor of Anatomy in the University of Dublin.

The Biennial Hunterian Oration was delivered on February 14th by Sir Henry G. Howse, the President of the Royal College of Surgeons of England. This date is the anniversary of John Hunter's birthday, and has therefore been chosen for the delivery of the oration since its foundation in 1813 by Sir Everard Home and Dr. Baillie. Sir Henry Howse devoted his address mostly to an account of the life and work of Hunter, and pointed out that though he was primarily an anatomist and a surgeon, he was also a remarkable collector of specimens not only illustrative of anatomy, but of zoology, botany and mineralogy as well. As a teacher he could claim to have had as pupils most of the great surgeons who succeeded him, and, though his diction was obscure and ponderous, he had an unusual power of imparting to his students the true inwardness of the subject on which he discoursed to them. At the dinner which followed, as usual, the delivery of the oration, many eminent members of the medical and other professions were present, and Lord Roberts had conferred on him the Honorary Fellowship of the College, to which he was elected two years ago. In replying to the toast of his health, the noble Earl bore eloquent testimony to the good work done in South Africa by the army medical service and by the civilian practitioners who were temporarily employed by the Government.

On February 24th the Prince of Wales presided over the annual meeting of the General Council of the King's Hospital Fund. The record of progress which his Royal Highness related was altogether encouraging. The income for 1902 amounted to £101,000, being more than

Digitized by Google

double that of the previous year. This sum is inclusive of the donations of Lord Strathcona, Lord Mount-Stephen and Mr. Edgar Speyer, which collectively produce of themselves over £17,000 a year. Mrs. Lewis has, moreover, offered to advance £10,000 or £12,000 a year on account of the bequest of her late husband. The King's original proposal was to raise an income of from £100,000 to £150,000 a year, and it now seems probable that his Majesty's charitable ambition will speedily be fulfilled. In the course of a happy and optimistic speech the Prince of Wales pointed out that the constant new discoveries in medical and surgical science which the hospitals are bound to provide for, increase unavoidably their annual expenditure, while at the same time the number of cases seeking admission is daily growing larger. He commended the fund to the support of his Majesty's subjects everywhere throughout the Empire.

South Australia.

(FROM OUR OWN CORRESPONDENT.)

The New Medical School—Expectoration on Footpaths—The Dental Act.

LAST year the Council of the University decided to build a new Medical School which should be more suited to the requirements of modern medical education. Hitherto the anatomical department had consisted of the dissecting room and a small room for the professor of anatomy. An old powder magazine served as a mortuary. There was no workroom for articulating skeletons or for mounting specimens, and no provision was made for the comfort of the students. The new Medical School has recently been completed, and is already in use. The new block is most commodious, and the comfort of those who will work there has been carefully studied by the Council. The building comprises a dissecting room, a pathological and anatomical museum, a pathological laboratory, a mortuary and rooms for the professor, his servant, and the students. The building is a single storey one, running east and west. Provision has been made for the addition of another storey should the growth of the school demand this extension. Stone, with red brick facings, has been used in its construction. The entrance lobby measures 24 feet by 13 feet. On the left of the lobby are the professors' room, the lecture room and the anatomical and pathological museum. It has been decided to fit the lecture room up and use it as a pathological laboratory. To the right of the lobby are separate reading rooms for the men and women students. The professors' room, the women's room, and the men's room are each provided with a lavatory and w.c. At the end of the entrance lobby is the dissecting room. This is a beautifully-lighted and well ventilated room. It measures 80 feet by 32 feet. The roof is an open one. The walls are tiled with opalite, and the floor is cemented. Two gas stoves are provided for the winter. Eight wash-hand basins have been placed at one end of the room and two sinks at the other. The museum is a large room which runs parallel with the dissecting room. It measures 96½ feet by 32 feet. Glass cupboards for specimens have been placed along one wall. A couple of cases have been provided for articulated skeletons. More cases will be provided as the specimens increase. It is to be hoped that strong efforts will be made to fill the cases already provided before the medical congress in 1905. Hitherto the students have been much handicapped by not having a well-arranged anatomical and pathological museum to refer to, such as exists in connection with the Medical School in Sydney, and with the Medical Schools in England. The mortuary measures 34 feet by 22 feet. It is placed at the west end of the block. Two large tanks have been provided for the preservation of subjects. The mortuary opens out on to a verandah measuring 22 feet by 12 feet, which is to be used for the purposes of operative surgery. An articulating and work room completes a block of buildings which is thoroughly abreast of the times, and which will be much appreciated by those who have to work in it. Mr. Nash, who has designed all the University buildings, drew the plans for the new Medical School.

The Corporation of Adelaide a few months ago passed a by-law forbidding spitting on footpaths. The penalty was fixed at a fine of not more than 40 shillings. So far the law has been a dead letter. No spittoons have been provided, and the unsanitary practice still continues.

Until January 1st, 1903, no Dental Act existed in the statutes of the State. The Act passed last session is now law. The Dental Board controls the registration of all dentists. No one is allowed to practise dentistry unless he is registered. Any dentist who has qualified in Sydney or at any of the recognised Dental Schools of the United Kingdom can practise after registration. Other applicants for registration have to prove to the board that they have a sufficient knowledge of dentistry to entitle them to be registered. The board consists of two medical men and four dentists. Dr. Wigg and Dr. Smeaton represent the medical profession. Several applications for registration have been refused. Some of the applicants have appealed to the Supreme Court, but so far the action of the board has been upheld in each case. There can be no doubt that the Act will tend to give the dental profession a better standing in the State than it has hitherto enjoyed.

Victoria.

(FROM OUR OWN CORRESPONDENT.)

THE Melbourne Hospital has finished the financial half-year with a deficiency of £2600, and the result of this is that advice has been flowing in from all quarters. The committee are told that they have never canvassed the public properly; and, in fact, the report drawn up by the Government official, who has been going into this matter, has been very strongly condemnatory. But our "great A.N.A." Society have given its advice to the public, or, I should say, to the gallery, to which they so much like to play. One of their principal orators stated that the present committee should be banished, and the whole management taken over by good business men. We have no doubt the council of the A.N.A. would like to run this, together with everything else of importance in this State, political or otherwise. There is not much hope of monetary assistance this year from the Government, and as this hospital has to take in the work of an infectious diseases hospital in addition to its duties as a general hospital, it is absolutely impossible to restrict the attendance. The class who benefit most by this hospital, viz., the working classes, do not contribute properly to its support, and if a paltry half-penny a week were deducted from all wages it would not be felt, and would materially improve the finances of the hospital.

Digitized by Google

The Fever Hospital was visited by the Minister of Public Health, Mr. Bent, and it is still in its usual condition of emptiness, and is likely to remain so.

There has been a great agitation about our lunatic asylums and the proper treatment of their inmates. A deputation of medical men waited upon Mr. Murray and pointed out many glaring errors in our present system, but from the Minister's reply it does not look as if much good is likely to come out of the interview. The system is wrong from start to finish, and the medical men in charge must have a very hard time in trying to do their multifarious duties in an honest manner. The female nurses are often uneducated, and do not know how to use a catheter in many cases, and will not be taught; and if the medical attendant wishes to know exact details of the amount of food taken by a patient he can never get a satisfactory reply. These matters I have been informed of by one who knows them to be absolutely true. If any of these incompetents are to be dismissed all sorts of troubles arise in the shape of boards of inquiry, and so naturally no steps are taken to improve matters. All classes of lunatics are herded together, and no matter how much any relative may wish to pay for extra attention or comfort it is not to be obtained. Private asylums are not allowed. If they were, hundreds of patients would be removed from the present asylums to properly conducted private asylums, and this would relieve a certain amount of the strain on the Government for room, and also save a lot of money. It is absurd in these days of civilisation to think that such a cruel, inefficient, and ghastly system of treating the insane exists, and it behoves all professional men to do their best to improve the present system by every means in their power.

A School of Instruction has been started at the Victoria Barracks for officers of the Australian Army Medical Corps in drills and exercises in the organisation, equipment and transport of bearer companies, field hospitals, etc. Surgeon-General W. D. C. Williams, Director-General Army Medical Services, is supervising these classes, and Major Horne, assisted by Sergeant-Major Morley, is conducting the classes on stretcher drill, improvised stretcher drill and hand-seat drill, pack saddle drill and ambulance waggon drill. Lectures are to be given by the Director-General on the following subjects:—Organisation, personnel, equipment, transport, and duties of a bearer company; organisation, equipment, personnel, transport and duties of (*a*) field hospitals, (*b*) organisation of base hospitals. The course will be a very valuable one to the surgeons attached to the Army Medical Corps in Victoria, and is said to be the precursor of a scheme of drilling stretcher-bearers from each battalion or brigade as the case may be. This is a step in the right direction, as the Army Medical Service has never had a chance of showing what good material it is composed of, and what it can do when it has the chance.

TONIC CONTRACTION OF THE UTERUS.

(To the Editor of the Australasian Medical Gazette.)

SIR,—I am sorry to again have to trouble you with remarks on the above matter, but "G.R.'s" letter published in the *Gazette* of March 20th can hardly be allowed to pass unanswered, as it contains what amounts to a rather serious charge against my friend Dr. Kennedy and myself, viz., that of "attempting . . . . a procedure which is termed unjustifiable by Playfair, and condemned by such writers as Herman, Galabin, and others."

I would like to say that my first communication was not intended as a record of unusual skill in midwifery. Nevertheless, I cannot but think that we may fairly claim to have done nothing "unjustifiable" in the circumstances. A reference to my reply in the *Gazette* of February 20th will show that I pass the use of the phrase "chloroform poisoning." It may be used by those who wish, and may fairly describe a case of "profound anæsthesia" with symptoms such as we observed in our patient. It did not cause the uterus to relax, however.

In the same reply I stated (2) that the position of the child and the rigid condition of the womb made it *impossible* to introduce any instrument in such a manner as to dismember the child. I could explain this at considerable length, and would gladly do so except for fear of encroaching too much on your space. I am sure anyone who had had the opportunity of examining these conditions as we had would have been compelled to the same conclusion, in spite of any dicta which may be found in books and announced on general principles. Certainly, any attempt to use an instrument within the womb without first removing the prolapsed arm would have been hopeless. There would be more reason in reproaching us with not having done Cæsarian section. Happily, the sudden giving way of the uterine muscles, which we attribute to the dose of amyl nitrite, rendered any such proceeding unnecessary, and the extraction of the fœtus the work of a very few minutes.

I am, sir, yours truly,

C. H. SOUTER.

Balaklava, S.A.

REMUNERATION OF MEDICAL WITNESSES.

(To the Editor of the Australasian Medical Gazette.)

SIR,—I beg to bring under your notice the following facts:—On the 2nd of March I attended the Central Criminal Court to give evidence in the Auburn murder case. The case was postponed, and did not come on again until to-day, when I attended and gave my evidence. On going to collect my fees I was rather astonished at being offered 21s and a return fare from Auburn, and a polite intimation that they knew nothing about the prior attendance. In support of his offer being correct the officer in charge of the pay department at the court produced some new regulations which had come into force to-day. I refused the amount proffered, and have referred the case to the Minister for Justice. On the first occasion I was absent from home four hours, on the second eight hours. If it is the intention of the Department of Justice to insist on paying medical witnesses on this niggardly scale I think that steps should be taken to enter a most emphatic protest by the whole profession, and a strong endeavour made to obtain some equitable remuneration for our services. Imagine a man being brought 200 or 300 miles from the country to Sydney, kept here for two or three days, and then offered 21s and a return fare.—I am, etc.,

FRANCIS H. FURNIVAL.

Auburn, New South Wales,
April 6, 1903.

The Birth Rate.—A correspondent in the *Sydney Morning Herald* writes stating that the birth rates published periodically by the Government Statistician are not accurate, because they do not take into account children that are born dead. He declares that his 27 years' experience in connection with Rookwood Cemetery enables him to say that the omission is a large one. He also says the present law is faulty in that it provides in certain circumstances that children born outside the State should be registered in it.

Digitized by Google

REVIEW OF CURRENT MEDICAL LITERATURE.

OBSTETRICS AND GYNÆCOLOGY.

Pregnancy with an Intact Hymen.

Severi (*La Clinica Obstetrica*, August, 1902) states that there are three classes of cases in which the hymen may be found intact in a pregnant woman. In one, the membrane is of such a yielding and lax consistence that it permits coitus (and even labour) without lacerating; in another, there has been no penetration, but only the deposit of semen in the valvular cleft; and in the third, there has been an anomalous conformation of the external genitals, and especially of the hymen itself. Severi's case belonged to the last-named class. Coitus had always been accompanied by considerable pain and suffering. The patient was four months pregnant when she came to hospital for advice in connection with some of the sympathetic phenomena of gestation. The urethral orifice was found to be dilated, and below it and to the left side a small fissure in the hymen was seen. The examining finger was introduced into this fissure, and immediately a serious hæmorrhage took place. This was quickly checked with artery forceps, and it was seen that it had come from a ruptured varicosity immediately within the lacerated hymen. Some catgut sutures were introduced. The pregnancy went on to the eighth month, and labour occurred naturally, save for a perineal laceration of the second degree. The author remarks on the curious circumstance that the examining finger in this case easily lacerated a hymen which had resisted laceration in many attempts at coitus. The dilatation of the urethra had, however, been caused by these unsuccessful attempts. Had the laceration and subsequent hæmorrhage occurred under other circumstances the woman might have died, and an obscure medico-legal problem might have resulted.

Pregnancy, complicated by Pelvic Abscess.

Wertheim (*Cent. für Gynäk.*, November 23rd, 1902) records the case of a patient, aged 26, who was admitted into hospital with signs of intestinal obstruction. She was 4½ months pregnant. Examination was made under anæsthesia, but no abnormal resistance was found in the pelvis, and it was decided to watch the case for a time. The obstructive symptoms increased in severity, and two days later the abdomen was opened. On the right side a large abscess sac was adherent to the uterus and to a coil of intestine. The proximal part of the bowel was greatly distended, the distal portion was empty and contracted. In separating the bowel the abscess sac burst. The uterus and right appendages were removed. A drain was inserted through the vagina. The patient died in 24 hours. Wertheim remarks that pregnancy complicated by pelvic abscess is infrequent. Hlawatschek, Fleischmann and Fabricius have recorded cases. The risk of rupture of the pyosalpinx when adherent to the pregnant uterus is great, and added to this, as the above case demonstrates, is the possibility of acute intestinal obstruction.

Post-mortem Cæsarian Section: Child Saved.

Bauer (*Monatsschr. f. Geb. u. Gyn.*, October, 1902) attended a moribund woman, aged 24, in the ninth month of her second pregnancy. Vomiting and loss of consciousness followed after 10 days of headache and feverishness. There was also opisthotonos, and the urine contained a trace of blood and albumen. Meningitis was diagnosed. For a few days the patient's condition improved, the pulse remained rapid, but the temperature never reached 102°; still, the opisthotonos grew worse, and the patient shrieked if she attempted to set the cervical vertebræ in action. Suddenly cyanosis set in, and Bauer saw that she was dying. The fœtal pulse was 140, the maternal heart ceased, then the pulse dropped to 100. Half a minute later the parietes were laid open, the uterus drawn out and freely incised, the membranes ruptured and the child delivered. It was slightly asphyxiated, but soon cried out loudly. The placenta being removed, the uterus of the dead woman contracted firmly, as has been observed in earlier cases. Bauer closed the uterus and parietes, and the operation was ended 14 minutes after death. The child measured 17½ inches, the circumference of its head was 12½ inches, and its weight 4½ lb. A recently-delivered woman in the same institution suckled it, and at the end of a month it was discharged in good health. Bauer notes that in this case several conditions favoured success. There was never very high temperature, a source of great danger to the fœtus; the carbonisation of the blood was confined to the patient's dying moments; and the operator found the fœtal pulse existent, though sinking after the mother's death, and immediately opened the uterus and delivered the fœtus. There was no sepsis—another danger to the child. It is clear that the mother was dead. Schwarz and Dohrn believe that the child can only be saved by delivery whilst the maternal life is not absolutely extinct. Proof of actual death is, however, not always certain in cases where prompt action is taken. Post-mortem Cæsarian section is decidedly a successful operation. Out of 15 cases recently reported, 12 children were delivered alive, two out of which died speedily. A net saving of two-thirds shows how justifiable is this operation. The three children dead when the uterus was opened were all borne by mothers with eclampsia; but in eight of the 15 cases that disease was the cause of maternal death, yet five out of the eight children were alive. Out of the two children that died speedily, however, one was from an eclamptic mother; the second was very weakly, not 3 lb. in weight. Only three of the whole 12 born alive breathed well from the first, all the others were more or less asphyxiated. In the discussion on Bauer's paper, Martin related a case where the mother died just as labour was about to be induced near term owing to trouble from valvular disease. Within five minutes of her last breath a living child was delivered through a transverse fundal incision. The child was reared. Lichtenauer operated where a woman was dying of suppurative peritonitis from two homicidal wounds of the intestines. The child was alive, but soon succumbed.

A Plea for the Conservation of the Uterus in Pelvic Inflammation.

O. Beverley Campbell (*Annals of Gynæcology and Pediatry*, October, 1902) thinks that the ambition of surgeons to introduce new methods must be held responsible for practices which are often deleterious to the best interests of our science. The origination of methods has in the past had very much to do with advancing the originator up the ladder of fame; and though he may originate a very inferior mutilative method, yet, like a new religion, it is usually favourably received and a following established. The author laments that the practice of removing the uterus in pelvic inflammation is becoming a popular practice in his own country. The fact that the uterus is often the seat of metritis and that, according to the hospital reports, the convalescence is much better and quicker when the uterus is removed than when it is left, have no weight with the author. He points out that the same was claimed when both ovaries were removed for unilateral salpingitis, the recovery being quicker, and the apparently healthy ovary on microscopical examination being generally found to be slightly diseased; yet the after history in numbers

Digitized by Google

of these cases was so unsatisfactory that the practice has been abolished, and operators now try all they can to save one ovary. The artificial menopause precipitated by the removal of the ovaries, especially in young women, with its varied train of unpleasant and at times serious mental symptoms, the strained connubial relations on account of sterility, and the changes in disposition of the wife—these and many other untoward post-operative conditions have forcibly impressed the profession with the necessity of conserving the ovaries when possible. The author claims similar consideration for the uterus, and he thinks that inflammatory conditions of the pelvic organs should be attacked by the abdominal route and not by the vaginal route, where it is difficult to operate successfully in many cases without removing the uterus to obtain more room. He regards a large portion of the vaginal work in pelvic inflammation as destructive, mutilative procedures, which save life at the expense of the woman's sexual organs. The author advances the following arguments in favour of the conservation of the uterus:—

1. In the larger percentage of cases the uterus will recover at least symptomatically.
2. The removal of the uterus markedly weakens the pelvic support.
3. When the ovaries are removed the uterus atrophies.
4. The sexual functions will be more satisfactory both to herself and husband, and that it is necessary to preserve the sexual function in married women is affirmed by the number of divorces following the work of the gynæcologist.
5. In a large percentage of cases an ovary or part of an ovary can be preserved, and the artificial menopause is consequently avoided, and maternity is also possible.

In support of his paper the author quotes the statistics of Dr. F. R. Oastler and Dr. A. Palmer Dudley.

Dr. F. R. Oastler reports 150 conservative operations, and states:

1. That in the majority of cases the symptoms indicating operation are removed.
2. That symptoms of the artificial menopause do not occur.
3. That menstruation, sometimes in a diminishing amount, continues.
4. That pregnancy resulted in 1 in 5.
5. That marriage relations are not interfered with.
6. That women preserve their identity, and are not relegated to the realm of "its."

Dr. A. Palmer Dudley reports 190 cases, with the following results:—

Forty-two cases were unheard of. Out of the 148 cases heard from, 28 became pregnant, of whom 23 were delivered at full term and 5 miscarried.

Dermoid in the Fallopian Tube.

Orthmann (*Cent. für Gynäk.*, Dec., 1902) speaks of this as a hitherto unique case. The patient was aged 33 years, and had had two children. She had been under gynæcological treatment for eight years, having undergone curetting, amputation of the cervix, and anterior vaginal fixation at different times, but she still remained under treatment for irregular hæmorrhages, for which she was again curetted. For the last year she had complained of very severe pain in the right side, and for some time a thickening of the right tube had been noticed. A sacto-salpinx and cystic ovary were diagnosed, and anterior colpotomy was performed, and a cystic ovary and dilated tube removed. On opening the tube it was found to contain fat, hair, detritus, and a tooth-like body of cartilaginous consistence. Microscopical examination revealed the presence of germinal epithelium.

On the Formation of Cysts of the Hymen.

Liegenspeck (*Archiv. für Gyn.*, 1902, Bd. lxvii., Ht. 1). Winckel first found two cysts of the hymen in 1883. Eleven cases have since been described. A fourteenth is now reported by the writer. The five cases observed by Winckel occurred in adults, as did two other recorded cases. Symptoms were produced in two, removal of the cyst once being necessary in order to relieve obstruction to the passage of urine. Most of the cysts were the size of a hazelnut or smaller.

The present case shows that cysts of this class may form during extra-uterine life, those previously seen appearing to have been congenital. The patient was treated for endometritis, parametritis, and oöphoritis in the year 1891, and a year later was attended during an abortion at the sixth month. *She had no cyst at that time.* Ten years later (in 1901) she again complained of the symptoms of endometritis, and at this time a cyst, 5 cm. in diameter, was found at the posterior commissure occupying the outer surface of the hymen.

The writer considers the various theories as to the origin of these cysts which have been advanced. He holds that they are due in most cases to the inpushing and separation of portions of the epithelium of the hymen. That the growth of converging and blending folds can produce them, he does not consider proved. In rare cases the cysts may be derived from lymph spaces and from remnants of Gärtner's ducts.

The Indications for Hysterectomy in Puerperal Infections.

Professor E. La Torre (*La Clinica Obstetrica*, Sept.-Oct., 1902) in an able and conservative paper reviews the question of hysterectomy in puerperal infections. He holds that there are only a few circumstances in which it is justifiable. In complete retention of the placenta, when it cannot be removed by the natural passages, and when there are signs of putrefaction, a general infection is practically certain and hysterectomy should be performed. The operation should also be performed when there are abscesses in the uterine wall and there is little likelihood of the uterus returning to its normal state, and also when in severe cases of infection curetting and all other means have proved futile and the site of infection is still localised in the uterus. He thinks that in most cases the conventional methods of treatment will prove efficacious, and are to be preferred to hysterectomy.

OPHTHALMOLOGY.

The Use of Large Doses of Salicylate of Sodium.

In the *Ophthalmic Record* for December last Gifford advocates large doses of salicylates. He finds that the average patient can stand, between 7 a.m. and 10 p.m., one grain of salicylate to each pound of body weight—that is to say, a patient weighing 150 lb. would stand ten 15 gr. doses at intervals of an hour and a half, while many patients can stand much larger doses. To prevent the tendency to collapse and gastric disturbance, he keeps the patient in bed and gives the salicylate in brandy, 15 gr. to the teaspoonful of brandy with water added. He omits the drug for a day or two every third or fourth day. The patient should also keep the head wiped dry if there be much perspiration. As to the diseases in which it is recommended, Gifford believes it is the most important treatment in all non-specific inflammations of the iris, ciliary body, sclera and

Digitized by Google

episcleral tissue, whether there is any question of rheumatism or not; also in acute retrotrebar neuritis, and in acute glaucoma. He lays special stress on its value in sympathetic ophthalmitis, post-operative or traumatic iritis, and cyclitis, non-syphilitic interstitial keratitis and herpes corneæ. In sympathetic ophthalmitis he values it more highly than mercury. As to the manner in which salicylate produces such remarkable effects, after giving the results of his experiments and reasoning, he concludes that its effect is not due to any germicidal action, because of the extreme rapidity of its elimination and the great dilution of the small quantity remaining in the blood and tissues. He has found it in the urine in less than five minutes, after taking 15 grains dissolved in brandy, and 95 per cent. of the drug is eliminated through the urine. He attributes the beneficial action to the local depletion produced by the general capillary dilatation that the salicylate causes. Whilst admitting that the diaphoresis may help, it is, to his mind, evident that this can play but a secondary part, because other drugs that produce free sweating have not the same effect on the inflammation, and in many patients who respond freely to the drug the diaphoresis is insignificant.

Vision Testing in Public Schools.

Last year the School Board for London appointed eight oculists to test the vision of children in schools under the control of the board. So far, the results in 17,245 children have been recorded. Serious visual defect was present in 8 per cent. of the boys and 11 per cent. of the girls. The percentage was smaller in the better class districts, and greater among the poorer. Children found to have subnormal or bad vision are given "advice cards" to take home. On the reverse of each card general advice is printed, in which the following paragraph may be noted:—"You are cautioned against the grave risks children may incur by wearing glasses as prescribed by the various sight-testing establishments, certified opticians, chemists, toy shops, or any other than qualified medical men."

Influence of the Sympathetic on Accommodation.

In von Graefe's *Archives für Ophthalmologie* Romer and Dufour give the results of their experiments on this unsettled question. They set themselves to show certain fallacies in former experiments by others, and conclude as a result of their own that, though the sympathetic causes pupillary dilatation, it has no power of causing negative accommodation. Curiously, Ternier and Camus find that stimulation of the sympathetic produces not a diminution but an increase of accommodation (*Ophthalmic Review*, November, 1902).

Dislocation of the Eyeball during Labour.

Two cases of this unfortunate injury have been recently recorded. Bock (Laibach) records the first. The accoucheur had apparently mistaken a face for a breech presentation, and dislocated the globe with his finger, and at the same time introduced septic matter into the orbit. The eyeball was dislocated right out between the lids. All the recti appeared to be torn across, and the cornea was hazy, and threatening to ulcerate. Bock divided the canthus and replaced the eye, but, in spite of all care, the cornea ulcerated, and the eye was entirely lost from suppuration. The second case was related by Snell, at the November meeting of the Ophthalmological Society. The left eye had been torn out by the forceps, and was hanging on the cheek, and connected to the orbital tissue by bands of conjunctiva. The optic nerve was torn through. The eye was removed by snipping through the conjunctival bands that held it. The left brow was marked by the forceps, and there was facial paralysis on the right side affecting only the lower half. The mother had a greatly contracted pelvis, and labour had been greatly prolonged and was only terminated after considerable traction had been exerted with the forceps. Snell also mentioned another case of a child admitted to the hospital shortly after the first case who, after a difficult instrumental delivery, showed a much swollen and protruding conjunctival swelling between the left lids, which finally sloughed without the eyeball being in any way affected.

Optic Neuritis in Diphtheria.

Bolton (*Lancet*, December, 1902) reports two cases occurring at University College Hospital, London. The first case was that of a male child aged four years, who suffered from severe faucial diphtheria. On admission to hospital on March 17th, 1901, the urine was free from albumin, and a pure culture of the diphtheria bacillus was obtained from the throat. Antitoxin was used, and in six days after admission the throat was almost clean. On March 26th definite signs of diphtheritic paralysis were manifest, the knee jerks were absent and the pupils dilated. On April 5th the optic discs were normal; each eye was hypermetropic, the right +3D and the left +2½D. On April 16th there was paralysis of accommodation, the right eye showed some swelling of the optic disc, with striation of the margins; the exudation was not very thick, and the vessels could be distinctly seen through it. The optic disc of the left eye was swollen, and the exudation was more intense and opaque than in the right eye. On April 22nd the exudation in the right eye was denser than before, and it had spread some distance on to the surrounding retina. There was also increased exudation in the left eye, spreading beyond the edge of the disc, and it was more dense than in the right eye. On May 24th the neuritis was subsiding, all the vessels of the right eye could be distinctly seen, and the edge of the disc was quite clear. The vessels of the left disc could also be distinctly seen, but the edge of the disc was still obscured, and there was still slight swelling. He was discharged on June 17th quite well. The author remarks about this case: first, that there was never any albumin in the urine, and therefore nephritis could be excluded as a cause of the neuritis; second, the neuritis appeared and disappeared while the child was under observation and suffering from diphtheritic paralysis; and third, the neuritis was less intense in the eye in which the greater degree of hypermetropia existed. The neuritis could not, therefore, have been mistaken for the condition simulating it which may be seen in hypermetropia. The second case was that of a girl aged 16 years, who had had faucial diphtheria, but who had not been treated with antitoxin. She came to the hospital with symptoms of diphtheritic paralysis, and on examination of the discs double optic neuritis was observed; the swelling was slight, and there was some redness of the discs. This all cleared up under treatment in about two months.

NEUROLOGY.

Motor Re-education.

A long article appears in the *Archives de Neurologie*, January, 1903, by Constensoux, "Chef du service de ré-éducation et Kinésithérapie de la Clinique Charcot (Salpêtrière)," on the re-education of the muscles in such cases as tabes, Friedreich's disease, chorea, cerebellar affections, Parkinson's disease—in fact, in cases

Digitized by Google

where we have great motor troubles, but in which the muscular *power* is preserved, together with non-abolition of voluntary muscular contractions. After a history of the method, he points out the reasons which led to its adoption. "Granted," he says, "that all normal co-ordinated movements have been learnt by the child or the adult by laboriously educating special nervous elements which govern muscular contractions and ensure their harmonious working, one can easily conceive that, in those cases where some change has deranged this delicate nervous mechanism, without, however, totally destroying the elements of the neuro-muscular motor mechanism, a new education of the altered centres might be able to re-establish the equilibrium of these contractions and so restore lost functions: experience proves that this hope is a legitimate one." Then, again, he points out that all movements are performed by the united action of several muscles, and that if one muscle becomes unable to perform its function the loss is compensated for by others. The rationale of re-education in hemi- and para-plegias is spoken of, and is, of course, somewhat different from that in tabes, etc.

He deals with the indications for treatment. As regards the individual muscles the great question is: Are the muscle fibres destroyed? It is important to note the muscular tone, which is an expression of nerve tone.

Although this therapeutic method is suitable to many diseases, yet for many reasons the writer considers it especially in regard to tabes dorsalis. He points out that in this disease there is not only inco-ordination of otherwise healthy muscles, but emphasises the fact that each muscle individually shows some alteration in function, and that it is necessary first to see that each muscle is trained to perform its special function well, and then exercises are chosen which will re-establish the co-ordinated action of groups of muscles.

The author gives no detailed accounts of the movements, but says that these vary with each case. His maxim seems to be: find out all the muscles affected, recognise what is their normal function, and then, by active and passive movements, trying to restore these functions to them. The process often takes months, and is very tedious, but Constensoux quotes cases which seem to show that *le jeu vaut bien la chandelle*.

In some of these cases he obtained such remarkably good results that it might be of interest to mention one or two of them. In one case, that of an army officer, the patient had suffered from tabes for seven years, and had had marked inco-ordination for two years. He had found it necessary to give up active work, and could only walk with great difficulty. He was a very intelligent man, and took great interest in the means used for his benefit. After four months' treatment, the report says, one could scarcely notice any trace of inco-ordination. He rejoined his regiment, took up all his former duties, could mount his horse, and the same year went through the summer manœuvres without trouble. He has since been put in charge of a battalion.

Another case was that of a woman, 54 years of age. Suffered from tabes for five years; muscular inco-ordination for 14 months. The disease made rapid progress, and for the last two months the patient was bedridden. She was carried on a stretcher to the hospital; she was unable to stand. At the end of three and a half months she quitted the hospital, alone and on foot, ready to follow her ordinary life, with the single drawback that she could not go for such long walks as she formerly could.

Functions of the Cerebrum.

It is interesting to note the number of papers and articles at present appearing on the mental functions of the brain. So far, one may almost assert, however, that we know almost nothing of the localisation of such functions. Many men are at work on the subject, and already many papers have been published, but up to the present each fresh worker has pointed out some fallacy in his predecessor's reasoning. One may almost say that not one mental operation has been localised. But still there is great promise for the future; each worker leaves some observation of greater or less value for the next. In the *American Journal of Physiology*, October, 1902, Franz gives the results of some experiments on the same subject. He quotes some of the results which Ferrier, Yeo, Horsley, Schäfer, Hitzig, Loeb and others have obtained. Franz's work has so far been confined to the frontal lobes. Now, it was thought that if one thing rather than another had been settled it was that the frontal lobes were the seat of certain simple associations. This was held because, if you teach an animal to associate certain ideas, and then remove its frontal lobes, it no longer performs the act which follows on such association. But Franz now points out that if you remove only part of the frontal lobes the animal no longer retains the association, but it is capable of learning it afresh. Further, if you now remove the remaining portions of the frontal lobes the association is again lost, but not hopelessly; the animal can again learn it. It follows that even if the frontal lobes are normally the seat of certain simple associations, yet this is not due to any great amount of specialisation on the part of this lobe, since other parts of the cerebrum can perform the same functions equally well.

The Eye in General Paralysis.

Keraval and Raviaub (*Archives de Neurologie*, Jan., 1903) discuss the condition of the fundus oculi in general paralysis of the insane. They give a brief historical account showing that writers since 1866 have noted the presence of optic atrophy in these cases. In the cases examined by the authors, changes in the fundus were noted in 82·3 per cent. They found in seven advanced cases, white atrophy of the disc in five, grey atrophy in one, and in the other a condition of bilateral posterior choroiditis. Examination of cases during periods of remission, or of mild cases, with a long, slow course, revealed no changes. Microscopic examination of a series of cases showed the changes to consist of a papillitis and a neuro-retinitis, infiltration of the higher elements of the disc and optic nerves with connective tissue and neuroglia cells, together with diffuse alterations in the ganglion cells and nerve fibres of the retina, leading in advanced cases to complete destruction of these elements.

The Rockefeller Institute.—Dr. Holt, secretary of the new Rockefeller Institute, has made public the plans for the conduct of that establishment as far as they are determined. They embrace a scheme of medical and pathological research unequalled in the United States, and not excelled in the world. Provision is made for a laboratory, which it is expected will be opened in October, 1904, for a hospital in which new methods will be tested, and for the publication of a journal in which the results of treatment by those methods will be made known. The ultimate plans will arrange for popular lectures on hygienic matters, a hygienic museum, and for the dissemination of literature on hygiene. Mr. John D. Rockefeller, the founder of the institute, has given $1,200,000 for starting the work, and is ready to contribute additional amounts as they are needed.

Digitized by Google

The Epsom Royal Medical Benevolent College.

THIS important institution, which, as most medical men know, is situated at Epsom, celebrates this year its 50th anniversary, the foundation stone having been laid in July, 1853. For many years the absence of a reserve fund has been greatly felt, and from time to time it has become necessary to borrow money from the bankers in order to meet financial requirements.

At the end of last year the College found itself with a debit balance of close upon £3000, and with a prospect of having to face immediately extensive and expensive structural repairs. Under these circumstances the council determined to make an effort to place the finances of the charitable side of the institution on a sound basis by endeavouring to raise a jubilee fund of £10,000.

To effect this purpose a festival dinner will be held on Wednesday, June 10th, at which H.R.H. the Prince of Wales has consented to preside. Members of the medical profession, for whose benefit the institution mainly exists, should leave no stone unturned to make this dinner the financial success which is necessary if the good work heretofore done is to be continued and extended.

The amount, though large, will readily be forthcoming if the profession wakes up to a proper appreciation of its duty and responsibility. And the matter is one which ought to appeal not only to medical men at home but also to those who are scattered throughout Great Britain's dominions beyond the seas. Epsom College grants annually pensions of £30 to 50 aged medical men or to the widows of those deceased, and provides, free of charge, an education of the highest class, with board and clothing, to 50 foundation scholars, the sons of medical men in necessitous circumstances. To maintain this benevolence, a sum of over £6000 a year is required, the greater part of which is derived from voluntary contributions. The treasurer, Dr. Constantine Holman, who has done so much for the welfare of this great medical charity, makes a special and earnest appeal for contributions, and desires it to be known that, though large donations will be welcome, small contributions will be no less gratefully received. The charitable lay public have already done much, and will doubtless do more, to assist him out of his financial difficulties, but he relies mainly upon the generosity of his own profession to enable him to carry through the present scheme. He hopes to have it in his power to inform the Prince of Wales, when the evening of the festival dinner arrives, that the response to his kindness in lending his gracious assistance has exceeded the council's most sanguine expectations, and that a substantial proportion of the total sum subscribed has been sent to his Royal Highness from the great dependencies of the Empire. Donations, which must be sent early in order that they may be duly announced on June 10th, may be remitted to the offices of the AUSTRALASIAN MEDICAL GAZETTE, at Sydney, or direct to Dr. Holman at the city offices of the Medical Benevolent College, 37 Soho Square, London, E.C.

"Sight-Testing" Extra-ordinary.

WE print some extracts from a circular sent to medical men by a Sydney firm of opticians (the italics are ours throughout):—

"My dear doctor,

"At this address I have rooms specially devised and fitted for the *exclusive practice of scientific ocular refraction*.

"As indicative of the thoroughness which marks the equipment of my chambers, I may state that dark room, ophthalmoscope (*sic*), skiascope, prisoptometer, ophthalmometer, colour tests, tests for motor muscle imbalance, as well as the usual forms of subjective forms of examination, are here available for the successful determination of *every known form of visual error*, and its (*sic*) correction.

"These, combined with much experience and a thorough knowledge of our *profession* (!), *invariably secures* (*sic*) *most successful results from every standpoint.*" (How enviously ophthalmoscopic surgeons must aspire to such a triumph!)

The circular goes on to solicit the patronage of the doctor, who has "perhaps neither the time nor inclination to undertake cures of refraction." "No drugs," they say, "are included in our treatment, neither does any instrument come in contact with the eye." They offer to "demonstrate to you personally that we are thoroughly competent," and conclude by offering a *quid pro quo* in the shape of a "perpetual calendar" should the doctor write them a letter approving of their circular.

This production might be regarded with admiration or amusement according to the point of view of the reader, and we should not consider it worth notice were it not that it was within our knowledge that a few medical men are in the habit of sending refraction cases to opticians. Doubtless it is done thoughtlessly, and we feel sure it is only necessary to point out how wrong this practice is, from every standpoint, to secure its discontinuance. If a surgeon (ophthalmic or other) were to say to a patient, "You have a cough; I believe your lungs are affected; go to Blank, consulting chemist, No. — ———street; he will sound you, and examine you thoroughly, and prescribe for you;" or if a physician were to send a fracture to an unqualified bonesetter, would the physician or surgeon be doing his duty either to the patient or the profession? And yet the case would be on all fours with that of a qualified medical man sending a refraction case to an unregistered person. The circumstances of the patient cannot be urged as an excuse. If unable to afford a fee he can get his refraction properly worked out, and his eyes properly examined and treated, at any of the large hospitals by competent specialists who give a large part of their time to this work.

Treatment of the Insane in Victoria.

WE make the following abstracts from a report which the Chief Secretary has received from Drs. Jamieson and Joske, two of the official visitors to the Melbourne metropolitan asylums. Their aim has been to present an account of the institutions as they are, not passing over their defects, and yet trying to be fair. Most, if not all, of the genuine defects recently pointed out have been made the subject of remark, and many of them repeatedly, in the official reports. It is admitted that the main building at Kew is badly planned, the construction being so defective, and the means of escape so deficient and badly placed, that an outbreak of fire might lead to a serious catastrophe. As the result of continuous overcrowding, rooms which are little better than wide corridors are used not only as sitting and recreation rooms, but also have to serve as dining-rooms. Another result of overcrowding is that some of the yards are habitually too full, and they are insufficient to allow of proper classification and separation of patients.

Seclusion and restraint are in the hands of the medical superintendents, without whose directions their use is forbidden. Seclusion may be a legitimate measure of treatment, and opinions may, and do, differ among authorities about it. As to restraint, there is practically a consensus of opinion that it should be kept at a minimum, and in its ruder forms abandoned. For

Digitized by Google

restraint may be in various forms:—(1) Mechanical, by jackets and other appliances; (2) by mere force of hands; (3) model, by personal influence and persuasion; and (4) medicinal, by means of sedative drugs. Of them all, the third kind should, theoretically, be alone in use; but, if so, there must manifestly be a large and efficient staff of attendants. In practice, there must and will be some amount of manual restraint needed. Most of the restraint in use is of a very harmless kind, and aims merely at keeping certain patients from injuring themselves or destroying their clothing.

Recommendations are made that at each asylum there should be a small detached building for the prompt isolation of infectious cases; that it might be advisable to leave all cell doors unlocked at night, as could easily be done with a sufficient increase in the number of night attendants; and that there should also be a system of electric tell-tale clocks. The doctors consider that something should be done at the earliest possible date to provide a suitable receiving house. Separate provision should be made without delay for patients whose friends are willing to pay for the accommodation. Another recommendation is that the superintendent of each asylum should be held responsible for all that takes place in his asylum. He should be under the direction of a board of management, which should have complete control of the whole department. Such a board might consist of the Minister in charge of the department, the inspector and a capable business man. The final recommendation is that one of the metropolitan asylums should be converted into a strictly curative hospital. This would mean a great reduction in the number of inmates, and of necessity the erection of other buildings elsewhere.

UNIVERSITY INTELLIGENCE.

Melbourne.—At the annual commencement of the University of Melbourne, held on March 25th, the following degrees were conferred:—*Bachelor of Medicine:* Albert Degenhardt, Walter Eugene Deravin, Charles William Henry Fleming, William Campbell Grindrod, Allen William David Robertson, John Patrick Spring, Bertram Milne Sutherland. In *absentia:* Charles Joseph Oliver. *Bachelor of Surgery:* Mary Baldwin, Hubert Sheppard Bush, Thomas Carlyle Leichardt Camm, John Howard Lidgett Cumpston, Wilfrid Norman Davies, Albert Degenhardt, Walter Eugene Deravin, Stewart William Ferguson, Charles William Henry Fleming, William Campbell Grindrod, Henry Talbot Hamilton, Edgar Victor Roy Huckell, Roland Mastai Lane, Mark Cowley Lidwill, Luther Morris, Owen Herbert Peters, Allen William David Robertson, John Patrick Spring, Bertram Milne Sutherland, Harvey Sutton. In *absentia:* James Bennett, Claude Fulton Hodgkinson; Charles Joseph Oliver. *Doctor of Medicine:* Constance Ellis, Francis Josiah Bonnin, William Arthur James, Thomas Edwin Llewellyn Lambert, John Thomas Murphy, Arthur Geoffrey Owen, Reginald Ernest Shuter, Edward Augustus Spowers, Henry Douglas Stephens. In *absentia:* William Thomas Clenhall, Herbert Frank Shorney, Charles Emmanuel Williams. *Master of Surgery:* Edward Leslie Gault, John Gordon.

Sydney.—The following graduates in medicine have passed the recent examination for the degree of M.D.:—Surgery: Honours, class I—F. P. Sandes (medal). Medicine: Honours, class I—C. B. Blackburn. Gynæcology: Pass—F. W. A. Magarey.

Adelaide M.B., Ch.B. examination.—Passed: Mary Murray Ambrose.

PUBLIC HEALTH.

New South Wales.

Scarlet Fever.—According to the records of the Public Health Department, scarlet fever and typhoid are rife in different portions of the State. There are at present close on 100 cases of scarlet fever under treatment at the Coast Hospital. During the fortnight ended on March 25, 212 cases were reported for the whole of the State, and of the number 138 were within the metropolitan area. The record of cases of typhoid fever in the city and suburbs of Sydney bears more than favourable comparison with that for the provinces. This is shown by the fact that for the past fortnight only 37 cases were reported in the metropolis, as against 379 for the whole of the State. In the corresponding period of last year the total number of cases reported was 172.

Prevention of Consumption.—The city solicitor has reported to the health committee of the City Council that in his opinion the council had no power to expend money in the purchase of lands or in the erection of buildings for the purpose of the prevention of consumption. Under its power to make bylaws for the promotion of public health, the council might make certain bylaws with the object of preventing the spread of consumption, but beyond that the council could not go. The city solicitor's opinion had been obtained owing to a proposition made by Alderman Dr. Camac Wilkinson at a recent meeting of the council for steps to be taken to prevent the spread of consumption. The report was referred to the bylaws committee to confer with the city solicitor and the city health officer, and if necessary, to draft an enactment to enable the council to spend any money necessary.

Metropolitan Vital Statistics.—During the year 1902 13,002 births were registered in Sydney and its suburbs, and in the same period 5937 deaths were recorded, the births thus exceeding the deaths by 7065, the birth rate being 25·86 and the death rate 11·81 per 1000 of population. The record of births is the best numerically since the year 1894, and relatively to population shows an advancement in the birth rate over that of all the years since 1897. The illegitimate births (1240 in number, or 9·54 per cent. of the birth list) exhibit a marked decline from the usual proportion. The death rate is slightly below the average of the preceding five years. The infantile mortality is below the average, being at the rate of 112 per 1000 births, as against 130, the average rate for the last 10 years. The deaths of children under 5 years of age is 32 per cent. of the death roll, the average being 38 per cent.; of persons aged 70 and upwards there were 836 deaths. The chief causes of deaths were: Zymotic diseases 579, the quinquennial number being 680 (scarlet fever 41, whooping cough 60, bubonic plague 39, diarrhœal diseases 143, typhoid fever 66). There were increases in scarlet fever, plague, puerperal fever, and decreases in measles, influenza, whooping cough, diphtheria, typhoid fever and diarrhœal diseases. Constitutional diseases 1148 (cancer 392, tubercular meningitis 64, phthisis 522). There is an advance in each of the divisions of this class, cancer and phthisis exhibiting increases of 17 and 8 per cent. respectively, but allowance in this connection must be made for the increase in population. Developmental diseases 474 (premature birth 213, old age 200). Local diseases 3153 (diseases of the nervous system 522, of the circulatory system 585, of the respiratory system 695, of the digestive system 880). Diseases of the nervous system show a reduced rate, but the circulatory system exhibits an increase of 25 per cent. above the average;

Digitized by Google

the main contributing causes were endocarditis and syncope, the latter being a striking advance on the mean figures.

Vital Statistics, Newcastle District.—During the year 1902 the births registered numbered 1906, and the deaths 852, the birth rate being 34·22 per cent., the death rate 15·30 per 1000 of population, the excess of births over deaths being 1054. The deaths exhibit a worse rate by 1·85 per 1000 compared with the previous year, and this is accounted for by the increase in the infantile groups, the adult mortality being less than in the previous year; the infant mortality being 296, representing a death rate of 155 per 1000 births as compared with the preceding rate of 116 per 1000, disclosing an advance of 34 per cent. in the deaths of children under one year. The chief causes of death were: Zymotic 113, or 13·26 per cent. of total to all causes (measles 18, whooping cough 14, typhoid fever 16, diarrhœa 24); constitutional diseases 112, or 13·15 per cent. (phthisis 48, cancer 28); developmental diseases 98, or 11·50 per cent. (premature births 52, old age 37); local diseases 419, or 49·18 per cent. (diseases of the nervous system 59, of the circulatory system 52, of the respiratory system 108, of the digestive system 149). The mortality from enteritis to a large extent explains the adverse mortality list. The deaths from this disorder numbered 49 in 1901, were 98 for 1902, and of these 90 were infants, a death roll of 11½ per cent. of the entire mortality of the year.

Victoria.

Food Adulteration.—Definite action to stop the adulteration of articles of food and drink will be probably taken very shortly. The Minister of Health (Mr. Bent) is prepared to provide funds to enable the Board of Public Health to prosecute vendors of adulterated food products, for the sake of the public health. The Minister has recently recommended Dr. Gresswell to "tackle some of the big jam factories," in which, he was informed, rotten tomatoes and other decayed fruits and vegetables were used.

Medico-Ethical and Medico-Legal.

F.R.C.S.E. asks:—"Is it usual to charge half-fees for professional attendance on boarded-out State children?"

***The Boarding-out Officer has supplied the following answer:—"It is usual for the members of the medical profession to charge only half-fees for attendance on boarded-out State children. The practice has been in vogue for some considerable time, as the attached excerpt from the report of the department for 1891 shows; and the philanthropy of the profession in the matter is much appreciated by the board." (Excerpt from Report):—"The small item for medical fees still presents evidence of the philanthropy of the medical gentlemen throughout the colony who, with one or two exceptions, have not hesitated to respond affirmatively to the board's request that they should on grounds of benevolence charge half-fees in ordinary cases, in order that the economical aspect of the boarding-out system might be a striking feature in its general operation."

MILITARY INTELLIGENCE.

The following appointments in connection with the military forces of New South Wales have been approved of and gazetted:—Army Medical Corps: Major Reuter E. Roth, D.S.O., to be principal medical officer, Commonwealth Military Forces, New South Wales, and Officer Commanding Army Medical Corps, to date from July 1st, 1902; Captain G. L. Mullins to be Staff Officer, Medical Services, Commonwealth Military Forces, New South Wales, to date from July 1st, 1902. Australian Army Medical Corps (volunteer establishment): John Macpherson, M.A., B.Sc., M.B., Ch.M. (Sydney), H. H. Marshall, M.B., C.M. (Edinburgh), Honorary Captain A. Y. Fullerton, to be Lieutenants; Lieutenant and Honorary Major N. R. Howse, V.C., to be Captain, to date from October 15th, 1900; Lieutenant E. P. McDonnell to be Captain; Lieutenant John Kerr to be Captain; Lieutenant M. O'G. Hughes to be Captain; Lieutenant H. K. Bean to be Captain; Lieutenant J. A. Dick to be Captain.

Victoria.

Reserve of Officers Medical Staff.—Militia: Major James de Burgh Griffith, M.B., Medical Staff Militia, to be Major, dated February 1st, 1903. Medical Staff Militia: Captain James William Moon Buick, M.B., Reserve of Officers, Medical Staff, Militia, to be Captain, vice Major James de Burgh Griffith, dated February 1st, 1903. Captain Buick will rank on the fixed establishment next after Captain C. L. Lempriere.

HOSPITAL INTELLIGENCE.

Queen Victoria Homes for Consumptives.—At the last monthly meeting of the house committee of the Queen Victoria Sanatorium at Wentworth Falls, and the Queen Victoria Home for Consumptives at Thirlmere, a report was read from the resident physician (Dr. McIntyre Sinclair) showing that good results were already being attained, and that the institution at Wentworth Falls was practically in active working order, though much remained to be done. The matron's report (Thirlmere) showed that there were 43 patients in the home, 12 had been admitted, 8 had been discharged during the month, while one patient had died. The majority of patients were progressing favourably. Dr. Cecil Purser reported that Sister Rogers, of the Army Nursing Service Reserve, recently arrived from England, and who had been on active nursing service during the late war in South Africa, had succeeded Miss Alice Sly as matron of the home at Thirlmere.

Carrington Hospital.—At the monthly meeting of the board of the Carrington Convalescent Hospital held on the 12th ult., Dr. Cecil Purser and Mr. P. F. Marich (hon. secretaries) were unanimously re-elected for the current year. Dr. F. W. West and Dr. Basil Faulds were reappointed medical officers. A letter was received from the hon. secretary of the Railway and Tramway Employees' Convalescent Hospital Fund notifying that at the annual meeting of the fund the proposal to grant an annual bonus to the hospital had been unanimously approved.

North Shore Hospital.—At the monthly meeting of the North Shore Hospital committee on the 13th ult. the president intimated that the new building was nearing completion, and would be out of the contractor's hands shortly. The furnishing committee had called for tenders, and the furniture was now being made. Dr. Newmarch moved—"That provision be made for the election of a resident medical officer, the tenure of office and salary to be agreed to by the committee." He thought the officer mentioned was absolutely required, if only for the purpose of treating immediately all urgent cases. The proposition was seconded by Dr. Clarence Read, and carried unanimously, and a sub-committee was appointed to carry the resolution into effect.

Digitized by Google

Maitland Hospital.—Matters are at a standstill in connection with the proposed erection of a new hospital, in consequence of the refusal of one of the trustees to allow a sum of £4000 to be withdrawn from the trust funds to provide £ for £ with £4000 granted by the Government for the new hospital. It is claimed by local medical men, supported by Government medical officers, that the present building is inadequate for present requirements and for demands that must be made on accommodation in the near future in consequence of the proximity of the South Maitland coalfields. The matter has been referred to the Premier.

Hobart Women's Hospital.—The foundation stone of the new Dunorlan Noake wing of the Queen Victoria Hospital for Women was laid last month by Mrs. Henry Reed, of Mount Pleasant, in the presence of a large gathering. A statement was read by the hon. secretary which showed that the finances of the institution were in a satisfactory condition, and the usefulness of the hospital generally recognised, the difficulty being to find room for the patients.

Hospital for Sick Children, Sydney.—In their 23rd annual report the board stated that 560 patients were admitted during the year to the general hospital, and there were 44 remaining from the previous year. Of these 394 were discharged cured, 70 relieved, 35 unrelieved, and 63 died. There were 177 admitted to the diphtheria hospital, and of them 143 were cured and 23 died. The out-patients numbered 3525. Compared with the previous year there was an increase of 68 patients treated in the general hospital. The death rate was 10·4 per cent., as against 11·1 per cent. last year. In the diphtheria branch there was a decrease of 14, while the death rate was 12·02 per cent., as against 18·8 per cent. in the previous year. The out-patients' department had been erected in Valentine-street, off George-street, and was now in full work, the number of children treated in the more commodious and centrally situated premises during the short time they have been opened for the reception of patients showing already a very large increase. It had also been possible to carry out the establishment of a convalescent home in connection with the hospital. The board of the Carrington Centennial Hospital Home for Convalescents offered to let on very favourable terms a cottage known as Grasmere, situated at Camden, and it was decided to accept the lease. The cottage had accommodation for 14 cots, and was at present in full occupation. During the past year many of the children leaving the hospital had again been cared for by the Walker Convalescent Hospital. The board had been unable to take any further steps towards building a new general hospital. The necessity for a new building was pressing, the present premises being absolutely inadequate and unsuitable for the work which should be done by a children's hospital in Sydney. The institution was again indebted for the success which had attended the work done during the year to the skill and unremitting devotion of the honorary medical staff. Dr. Herschel Harris had been appointed hon. radiographer. The other changes in the medical staff were as follows:—House surgeons, Dr. Hart and Dr. Harper, out-patients' department; hon. assistant surgeons, Dr. R. B. Wade and Dr. Donald McMaster; hon. registrar and anæsthetist, Dr. W. H. Read. The Government subsidy for the year 1902 appeared exceptionally large, but the sum of £792 14s 6d due to last year was only paid on January 29 of this year, and the balance of £1729 17s 3d is the actual amount of subsidy belonging to the year under review. The usual special grant of £250 towards the diphtheria ward was duly paid. The perpetual cot endowments had been further increased during the year by an extra donation of £1000 from Mrs. John Fraser, as a Coronation commemoration gift, and a contribution from the Scandinavian citizens of Sydney, who had raised a similar amount for the endowment of a cot, to be called the Scandinavian Commonwealth Commemoration Cot. These donations raised the perpetual cot endowment funds to £6000, which meant the perpetual endowment of six cots. The Hospital Saturday Fund contribution to the Children's Hospital amounted to £400. Subscriptions, donations, etc., including the sums previously mentioned, amounted to £4645 18s 1d. Patients' payments for the year amount to £486 10s 7d, a slight falling off compared with last year. The total payments under the head of general maintenance were about £300 in excess of last year, owing to the increased cost of all provisions, and the necessary extra expenses incurred in maintaining the nurses' home. An expenditure of £2190 16s had been incurred in the new out-patients' department.

Coast Hospital, Sydney.—There is an unusual amount of pressure at the present moment upon the accommodation provided for patients at the Coast Hospital. Altogether provision has been made for 324 beds, but in view of the number of pressing cases brought before the Board of Health, temporary beds have had to be made up. In February last there were 19 of these, hence the number of patients under treatment was 343. A large percentage of the beds is occupied by persons suffering from infectious diseases, such as typhoid fever and scarlet fever. The number of patients admitted during March was 275, some 296 were discharged, whilst 304 were remaining in the institution on April 1. For the first quarter of this year there were 900 admissions to the hospital.

Brisbane Hospital.—From the fifty-fourth annual report of the committee of the Brisbane Hospital we learn that in the institution on the 1st January there were 182 persons; admitted during the year, 3464, making a total under treatment from 1st January to 31st December of 3646. There were discharged, cured or relieved, 2872; incurable, or at their own request, 235; removed to lunatic asylum or reception house, 23; died, 313; remaining in the institution on 31st December there were 203. The number of in-patients treated exceeds that of the previous year by 248, and that of 1900 by 434. Of the 313 deaths, 52 took place either on the day of admission or on that immediately following. The mortality per cent. was nine, but counting only those who survived until the third day it was 7·6. The average number of patients in the hospital was 219, and the average stay in hospital was 20·9 days. The out-patients numbered 6571 at the hospital, and 708 at the South Brisbane Branch Dispensary. The corresponding figures of the previous year were 6245 and 717. *Honorary Medical Staff.*—The Hon. Dr. C. F. Marks, M.L.C., received an extension of leave to enable him to pay a visit to the old country. Dr. Fisher and Dr. Page were appointed honorary medical officers at the South Brisbane Branch Dispensary. Dr. J. Espie Dods was elected to the out-patient department in May, but immediately after, upon being made Government Medical Officer, he resigned the post. The committee record their appreciation of the valuable services rendered during their respective terms of office by Drs. A. B. Brockway and Alfred Sutton. *Financial.*—The Hospital commenced the year £800 in debt and ended it owing £1400, having retrograded to the extent of £600. The reduction of the endowment, which operated from July 1st, cost the institution £971 in six months. This in itself sufficiently explains this discrepancy. The total ordinary expenditure exceeded

Digitized by Google

that of the previous year by only £66, notwithstanding the extra patients treated. The department of the surgery and dispensary alone shows marked increase, due to more surgical work and advanced prices. The cost per head for the year was £70 3s 5½d, as compared with £76 12s 8½d in 1900. Important alterations and valuable additions were last year reported to have been made to the operating room. It was then mentioned that certain alterations had provided "a convenient apartment for administering anæsthetics." Increased work in the surgical department has made it necessary to appropriate this room also to the purpose of operations, and an equipment has been provided which will render this apartment, save as to size, almost a duplicate of the principal operating room, the contents of which have been previously described. No pains have been spared to make the best use of the structure, and, with the excellent modern appointments that have been provided, the work of the surgeons should be greatly facilitated, and, therefore, the highest good of the patients secured. A complete X-ray outfit for diagnostic and therapeutic work will shortly arrive, which is said to be as complete and up to date as it is possible to obtain. The committee are pleased to acknowledge the service rendered by the Government Bacteriological Institute, since its inception, in the diagnosis of diseases from specimens, of which during the past year there were no less than 334 submitted and reported upon.

PERSONAL ITEMS.

Dr. E. Sheaf, after an absence of nine years, has returned to Toowoomba, Queensland.

Dr. T. A. Price, late assistant at Willowburn Asylum, Toowoomba, has begun to practice in Toowoomba.

Dr. R. F. Harding has removed to Roma.

Dr. Fenwick, a new arrival in Wanganui, N.Z., has been appointed by the Hospital Board a visiting surgeon to the institution. He occupied a similar position at the Christchurch Hospital, and resigned to serve in South Africa. There he was appointed surgeon to the military hospitals at Pretoria and East London, and on returning to the colony was appointed to the charge of the plague and military hospital at Christchurch.

Dr. Adams, of Nelson, is about to start practice in Takaka.

Dr. Jas. Young, of Invercargill, is leaving shortly on a visit to Europe. Dr. Ewart is to be his *locum tenens*.

Dr. Jas. Macpherson, in consideration of the valuable services given to the institution for the last 10 years, has been appointed by the Dunedin Hospital trustees honorary consulting physician to the hospital.

Dr. Edmonds has decided to start practice at Kawakawa.

Dr. William McAra, who returned from the North early in the month, has been on a visit to Gore, N.Z., where he intends shortly to commence practice.

Dr. Elinor Baker left Dunedin on the 15th ult., *en route* for England, to further prosecute her studies in medicine and surgery.

Dr. H. O. Jones, late of Colwyn Bay, North Wales, is amongst the late arrivals in New Zealand.

Dr. Sinclair Gillies has removed from Elizabeth-street to 153 Macquarie-street North, Sydney.

Dr. G. H. Broinowski, of Hay, has succeeded to the practice of Dr. Watt, late of Narandera, N.S.W., who has left for a trip to England.

Dr. F. M. Blackwood has resigned the appointment of honorary medical officer to the Western Suburbs Cottage Hospital, Sydney, owing to his leaving shortly on a trip to England.

Dr. T. Storie Dixson has been elected president of the Linnean Society of Sydney for this year.

At the last meeting of the Sydney Linnean Society a paper was read on "The Revision of the Australian Lepidoptera," by Dr. A. Jefferis Turner, of Brisbane.

Dr. Edward Feilchenfeld has succeeded to the practice of Dr. Broinowski at Hay, N.S.W.

Dr. E. R. Roseby has succeeded to the practice of Dr. Lewis Hickey at Nyngan, N.S.W. Dr. Hickey has left for a trip to England.

Dr. M. J. Lyden, formerly of College-street, Sydney, has left New South Wales on a protracted visit to England.

Dr. J. Leva has left Sydney for Tarasp, Switzerland.

At the last meeting of the committee of the Marrickville Cottage Hospital a letter was received from Dr. Chenhall, requesting leave of absence for 12 months owing to his projected departure for London. The leave of absence was granted, and a vote of thanks was passed to Dr. Chenhall for his past services to the institution.

Dr. Chenhall also wrote, asking the acceptance by the committee of an engraving by Samuel Bellin, from the famous painting by Barrett, "Florence Nightingale at Scutari: a Mission of Mercy," and the offer was accepted with thanks.

Dr. Morgan has resigned his position as medical officer to out-patients at the Adelaide Children's Hospital.

Dr. J. D. Hurst has resigned his appointment as Public Vaccinator at Laverton, W.A.

Mr. J. F. Flashman, B.A., M.D., has been appointed to represent the University of Sydney at the International Congress of Hygiene and Demography to be held at Brussels in September next.

Digitized by Google

MEDICAL APPOINTMENTS.

NEW SOUTH WALES.

Bowker, Cedric V., M.B., Ch.M. (Syd.), to act temporarily as second Government Medical Officer for six months.
Bracecr, D. A., to be Medical Officer to the Hospital, Walgett.
Scott, C. H., M.B., Ch.B. (Melb.), to be Medical Officer to the Bourke Hospital.
Stoker, Henry. F.R.C.S.I., L.K.Q.C.P.I., to be Consulting Medical Officer to the Hospital at Junee.
Taylor, George Henry, L.R.C.P.S. (Edin.), to be Government Medical Officer and Vaccinator, Sydney, and Visiting Surgeon, Darlinghurst Gaol, during the absence of Dr. Paton on six months' leave.

On the recommendation of Professor Wilson, Messrs. E. Ludowici, M.B., Ch.M., W. H. Read, M.B., Ch.M., and J. C. Windeyer, M.B., Ch.M., were appointed Honorary Demonstrators in Anatomy in the University for the current year.

VICTORIA.

Cuscaden, George, L. et L. Mid., R.C.P., R.C.S. (Edin.), to be Honorary Surgeon to Out-patients, Women's Hospital, Melbourne.
Greig, Janet, M.B., Ch.B. (Melb.), to be Honorary Assistant Anæsthetist, Melbourne Hospital.
Grimwade, Alfred, M.B., Ch.B. (Melb.), to be Honorary Assistant Anæsthetist, Melbourne Hospital.
Hawden, Reginald, M.B., Ch.B. (Melb.), to be Resident Medical Officer of the Warrnambool Hospital.
McKeddie, J. F., to be Demonstrator in Pathology at the Melbourne University.

WEST AUSTRALIA.

The following honorary appointments have been made to the Medical Staff of the Perth Public Hospital:—
Consulting Physician, Dr. O'Connor; Physicians, Drs. Astles, McWilliams and Thurstan; Physicians to Out-patients, Drs. V. Black and Brown; Surgeons, Drs. Tratman, Saw and Trethowan; Surgeons to Out-patients, Drs. Randell and Nyulasy; Gynæcologist, Dr. Harvey; Gynæcologist to Out-patients, Dr. Horrocks; Ophthalmic Surgeons, Drs. Kelsall and Burkitt; Surgeon, Ear and Throat, Dr. Macaulay; Diseases of Children, Surgeon-Physician, Dr. Officer.
Harrison, Dr. W. A., to be Acting District Medical Officer, Williams, during the absence on leave of Dr. Roughan.
Ick, T. Edwin, M.B. (Melb.), to be Officer of Health at Peak Hill.
Langdon, Dr. J. A., to be Acting District Medical Officer at Southern Cross during the absence on leave of Dr. E. S. Humphrey.
Thompson, James, M.B., Ch.B. (Melb.), to be Acting District Medical Officer at Busselton, Acting Quarantine Officer for the port of Busselton, and Acting Public Vaccinator for the urban and suburban districts of Busselton and rural district of Sussex.
Wace, Dr., to be a Visiting Justice to the Gaol at Derby.

SOUTH AUSTRALIA.

The following medical men have been appointed on the Board of Management of the Adelaide Hospital, viz.:
Hayward, William Thornborough, M.R.C.S.; Hill, Alfred William, M.D.; Rogers, Richard Sanders, M.A., M.D.
Shepherd, Arthur Edmund, L.R.C.P., L.R.C.S., to be Honorary Gynæcologist Adelaide Hospital.
Verco, Sydney Manton, M.B., M.S., to be Honorary Assistant Bacteriologist, Adelaide Hospital.
Newland, H. Simpson, M.B, M.S. (Adel.), F.R.C.S. (Eng.), to be Medical Officer to Out-patients, Children's Hospital, Adelaide.

NEW ZEALAND.

Hotop, F. R., M.B. (N.Z.), to be Junior House Surgeon to the Dunedin Hospital.
Smith, John Carmichael, L.R.C.S. (Irel.), to be Public Vaccinator at Taihape.
Reekie, John Slingsby, M.D., M.S. (Kingston, Canada), to be Public Vaccinator at Kaitaia.
King, F. W. R. J., M.R.C.S. (Edin.); Baldwin, G. P., L.R.C.P., L.R.C.S. (Edin.); Herbert, W. E., M.D., F.R.C.S. (Edin.), to be members of the Military Pension Board.

PROCEEDINGS OF AUSTRALASIAN MEDICAL BOARDS.

QUEENSLAND.

Cameron, Donald Allen, M.B., M.Ch. (Univ. Syd.), 1900.
Kelly, William Ryton, M.B., B.S. (Univ. Melb.), 1902.
Maxwell, Charles, M.B., B.S. (Univ. Melb.), 1902.
McLean, John Barr, M.B., B.S. (Univ. Melb.), 1900.

WEST AUSTRALIA.

Campbell, John Adam, L.R.C.P. (Edin.), 1897; L.R.C.S. (Edin.), 1897; L.F.P.S. (Glasg.), 1897.
Laver, Charles William, L.R.C.P. (Edin.), 1894; L.R.C.S. (Edin.), 1894; L.M. (Edin. and Glasg.), 1894; L.F.P.S. (Glasg.), 1894.

SOUTH AUSTRALIA.

Kilpatrick, William, M.B. (Melb.), 1886; B.S. (Melb.), 1887.

NEW SOUTH WALES.

Feilchenfeld, Edward, M.B. 1898, B.Ch. 1899 (Univ. Melb.).
Neumann, Eugen, State Exam. Certif., Munich, 1893.
Sinclair, Malcolm Alexander McIntyre, M.B., M.S. 1893, M.D. 1900 (Univ. Glasg.), Dip. Publ. Health (Univ. Camb.) 1895.

For Additional Registration.

Meeke, Arthur Henry Montgomery, L.R.C.S. (Edin.) 1902.

BIRTHS AND DEATHS.

BIRTHS.

BELL.—On February 23rd, at Gala, Murwillumbah, N.S.W., the wife of Hugh T. S. Bell, F.R.C.S.—a daughter.

PHILPOTT.—On March 5th, the wife of A. J. W. Philpott, M.B. and B.S., of Ararat, Victoria—a son.

WOOD.—On February 5th, the wife of A Jeffreys Wood, M.D., of Collins-street, Melbourne—a son.

WORRALL.—On April 7th, at 20 College-street, Hyde Park, the wife of Ralph Worrall—a son.

DEATHS.

BOWKETT.—On March 15th (suddenly), at Winton, Central Queensland, William David Bowkett, M.R.C.S. (Eng.) and L.S.A. (Lon.), formerly of Herberton, N.Q., and Leeds, Eng.

BOWKER.—On April 3rd, at his residence, Avoca, Darling Point, Sydney, Richard Ryther Steer Bowker, M.D., F.R.C.S. (Eng.), M.R.C.P. (Lon.), L.S.A. (Lon.), M.L.C., in his 88th year.

CROMMELIN—On April 13th, at Glen Innes, Charles Ebdon Crommelin, M.D., aged 54 years.

MACLENNAN.—On March 28th, at Cowra, N.S.W., Frederica Emma, loved wife of J. N. E. MacLennan, M.B., of Young, N.S.W.

LETTERS AND OTHER COMMUNICATIONS HAVE BEEN RECEIVED FROM:—

Drs. S. Jamieson, Sydney; C. S. Hawkes, Brisbane; R. Arthur, Sydney; C. MacLaurin, Sydney; H. Simpson Newland, Adelaide; J. C. Verco, Adelaide; W. R. Fox, North Fitzroy; B. B. Ham, Brisbane; A. E. Randell, Perth (W.A.); J. A. G. Hamilton, Adelaide.

HUDSON'S "EUMENTHOL" JUJUBES (Registered) are a Gum Jujube containing the active constituents of well-known Antiseptics, Eucalyptol, Thymus Vulg., Pinus Sylvestris, Mentha Arv., with Benzo-Borate of Sodium, etc., and exhibit the antiseptic properties in a fragrant and efficient form. Sold by all chemists; tins, 1s 6d. Are Antiseptic, Prophylactic, reduce Sensibility of Mucous Membrane. Mr. W. A. Dixon, F.I.C., F.C.S., Public Analyst of Sydney, after making exhaustive tests, says:—"There is no doubt but that 'Eumenthol' Jujubes have a wonderful effect in the destruction of bacteria and preventing their growth. . . . I have made a comparative test of 'Eumenthol' Essence and Creosote, and find that there is little difference in their bactericidal action."

FOR SALE.—OPHTHALMIC TEST CASE, by Wachet et Fils, Paris, in first-class order, containing 60 pair Convex and Concave Spherical, 36 pair Convex and Concave Cylindrical, 10 Prisms, 4 Diaphragms, Coloured Glasses, Spectacle Frames, &c. All glasses in silver or gilt mounts. Price, £7 10s. Apply E. R. c/o *Australasian Medical Gazette* Office, 121 Bathurst-street, Sydney.

Digitized by Google

AUSTRALASIAN MEDICAL GAZETTE.

A CASE OF MYELOPATHIC ALBUMOSURIA.

By Jos. C. Verco, M.D. (Lond.), F.R.C.S. (Eng.), Adelaide, S.A.

THE members of the South Australian Branch of the British Medical Association will remember seeing a patient shown by me at a meeting held several months ago who was suffering from myelopathic albumosuria. I was able to demonstrate the bone affection in his left humerus, his sternum, his right clavicle, and his cervical and dorsal spine; and also show the albumose in solution in his urine, as well as the same substance which had spontaneously separated, and resembled a deposit of urates. The man has since died, and to-night I will bring before you full notes of his case, and make some observations upon it.

If any excuse is needed I may plead that this is the first case which has been diagnosed in Australasia. The disease is comparatively rare, and it is desirable to circulate a knowledge of it, so as to lead to a recognition of other cases of the same kind.

My first acquaintance with it was made through a lecture given by Dr. Bradshaw, and printed in the *British Medical Journal* of 1900, vol. 11, p. 1304. From this I was enabled to make my diagnosis. Then I referred to two papers by the same physician, read before the British and Foreign Medico-Chirurgical Society, and published in its transactions, vol. 81, 1898, p. 259, and vol. 82, 1899, p. 251. These contained a full report of a typical case, giving a detailed history, a partial post-mortem, an elaborate analysis of the urine, a microscopical examination of the diseased bones, and a consideration of its diagnosis, pathology, and treatment. To these papers all who are interested are referred. The following are the notes of my case:—

Mr. H., aged 63, storeman in an ironmongery warehouse, was born in Somerset, in the province 61 years, was first seen by me in consultation with Dr. J. E. Good, on September 5th, 1901, for severe pains in the head and chest. The complete history of his case is this: From 15 to 40 years of age he was liable to attacks of quinsy coming, perhaps, every three or four years, laying him up for a week or 10 days, and ending by the bursting of a tonsillar abscess. Then for more than 20 years he was free from the complaint until a year ago, when he had a quinsy on the left side. He was kept at home for 10 days. He thought he would have died from suffocation, but it burst and discharged a very large amount of pus, and he was quickly all right.

Sixteen years ago he had phlebitis in the right leg, from the ankle to the knee, for about 10 or 14 days, with complete recovery.

In January, 1898, he stumbled and fell on the left arm and broke it about two inches above the elbow. It never seemed so strong as before, so that he always gave preference to the right arm. In May, 1899, he was lifting up a case weighing 126 lb. to put it on a shelf above his head, when, in some way he cannot explain, the case fell on him, knocked him on his back and pinned him by the legs to the ground. When extricated, his left arm was found to be broken again. It was set, and kept in splints for eight weeks. Four or five weeks after the accident another practitioner saw it in consultation, and said there was something wrong in the upper part of the arm, which could only be put right by operation under chloroform, and he could not guarantee a successful result even by such means. So the patient decided against interference. Since that time the arm has been weaker, he has not been able to get the hand to the head, and when carrying things they drop out of his hand.

Two years afterwards he caught his left foot in an obstacle, and sprawling forwards, knocked his left arm against a stack of cases, and fractured it for the third time. Dr. J. E. Good set it for him.

On July 13th, 1901, he chanced to kick his foot at night against a bulwark-block in the street during the visit of the Duke of York. This severe jerk gave him instantly a pain at the back of the neck, which the next day was so stiff that he could not bend or turn it, and in a few days his suffering was so great that he had to send for his doctor. The pain has now continued unintermittingly for eight weeks. For about ten days he has noticed a "dead spot" on the left side of the top of his head, towards the back part, which feels numbed. Pains in the left shoulder have gradually arisen, and extended as far as the elbow. A pain in the middle of his dorsal region, which extends round both sides of his chest to about midway between the navel and the sternum, came on about the same time as that in his neck. He has no pains down his legs, nor any trouble with his urine, which he can voluntary pass or retain. He has to rise twice during the night to micturate, but this has been his habit ever since he can remember. He has not to

Digitized by Google

void urine more frequently either by day or by night than he always did. He is a widower His wife died in November, 1898, of malignant jaundice, under the care of Dr. Swift and Dr. Giles. She was ill for six weeks. He says he has lost 18 or 20 lb. in weight since his last accident. About four months ago, just before that, he weighed the same as he had done for ten years previously. He thinks he had not lost strength prior to his last accident in the left arm.

His father died in 1861, aged 54 years, of congestion of the lungs, after an illness of three or four months. His mother died in 1886, aged 71, of unknown cause—he thinks general debility. He had five brothers and four sisters. One brother died in infancy, of unknown cause; another died at 52 from a severe accident. All the rest are well. He has had a son and two daughters; the former died, aged 18 years, of enteric fever, in 1887. One daughter, with whom he lives, is unusually tall and stout, and has had only one child, a son, who is quite well after two operations for intrathoracic hydatids. The other daughter is also well, and has two healthy children.

Present condition: He is a feeble-looking old man, who moves with difficulty, owing to the pain caused by bending either the neck or back. He holds his head slightly deviated to the left, and with the chin pointing a little towards the right. The right trapezius is prominent and taut from the back of the head through the neck. The left is somewhat wasted, as are also the left supra- and infraspinatus, deltoid, biceps and triceps. Just below and slightly behind the tip of the right mastoid process is a round hard lump as big as a Barcelona nut, fixed, and very tender, apparently bony, and suggesting the transverse process of a cervical vertebra, dislocated laterally to the right. There is no corresponding lump on the left side. He can turn his head slowly and carefully, and almost completely to the right, but scarcely beyond the middle line to the left. Flexion and extension of the neck are very limited and painful.

There is a slight prominence on the front and inner side of the left humerus, about two inches below the acromion process, very tender on pressure. He cannot abduct the left arm, and the deltoid seems very weak and the shoulder-joint can be passively moved to a very limited degree owing to stiffness and pain. The right wrist has the distortion of an old Colles's fracture, the lower end of the radius is widened laterally just above the carpus and prominent on the dorsal surface, the styloid process of the ulna projects, and the hand is somewhat deviated to the radial side. He says that when his left humerus was in splints he tripped and fell on his right palm and sprained the wrist very badly, and had it in splints for three weeks.

There is considerable tenderness over the seventh and eighth dorsal spines, and pressure upon them causes sharp pain to shoot round the sides of the chest and abdomen, between the navel and epigastrium. The eleventh and twelfth ribs on the left are tender, and pressure on them at one spot gives him a spasmodic pain in the abdomen.

Nothing abnormal is noticeable about the bones of the pelvis or legs. There is no ataxy with shut eyes, the knee jerks and cremasteric reflexes are normal, the pupils are equal and react to light, there is marked complete arcus senilis. Pulse 72, quite regular; the artery is not hard or tortuous, the heart's apex beat is in its normal situation, and its sounds are pure. The lungs are normal.

The top of the left side of the scalp, at the posterior part, is hypæsthetic, and is the seat of the pain experienced on moving his head. His appetite is moderate, his bowels are costive; the amount of urine carefully measured for several consecutive days averages 19 ounces. On examination it gives the reactions for albumose.

I put him on liq. arsenicalis, m. 80; ext. cascara sag. liq., dr. iss.; syr. zingib., oz. iss.; aq. ad., oz. iii.; dr. i. ter die, and ordered lin. chlorof. p.r.n. utend

October 4, 1901.—Liq. arsen., dr. ii.; ext. casc. sag. liq., m. 80; syr. aurantii, oz. iss.; aq. cinnam. ad., oz. iii; dr. i. ter die. Lin. bellad., oz. iv. ter die utend.

October 9, 1901.—There is much tenderness over the sternal end of the right clavicle, and some enlargement of the bone here, and moving the arm elicits slight grating in the sterno-clavicular joint. The fourth ribs on both sides are very tender, as is also the lower part of the sternum. The vertebral spines just below the level of the angles of the scapulæ are slightly prominent. One night his pains were so severe he could not stay in his bed, but had to get up and sit in his chair.

October 12, 1901.—A small tender lump can be felt on the left fifth rib, outside the nipple line. *October 21, 1901.*—The tenderness and swelling over the front of the clavicle are less, but on its posterior aspect is a swelling of the bone as large as a pigeon's egg. The sternum, between the cartilages of the fifth and sixth ribs, has an extremely tender ridge across it, as though it had been transversely fractured, and the lower fragment had been dislocated forwards half an inch. The lower ribs are still very tender. Liq. arsenicalis, dr. iiss., etc., aq. ad. oz. iii., dr. i. ter die.

Digitized by Google

October 28, 1901.—Liq. arsenicalis, dr. iii., etc., dr. i. ter die.

October 30, 1901.—The left second rib and the left fourth and the right second are so tender on pressure as to cause a sense of faintness. The ribs seem rather yielding, so as to suggest that hard pressure would break them.

November 5, 1901.—Pulse 100. Has had severe pains darting round the sides of the chest and abdomen, for which morphia has been ordered without much benefit. The tenderness of the sternum and the clavicle has almost gone. Movement of the head is no freer, but is less painful. The swelling on the clavicle is smaller, and the contour of the inner end of the bone is much more distinct than when the pain and tenderness were present. It would seem as though at that time there were some periostitis, with slight infiltration of the tissues immediately adjacent, which has since subsided. Liq. arsenicalis, dr. iiiss., etc., dr. i. ter die. *November 19, 1901.*—The paroxysmal pains are less severe. *November 28, 1901.*—Liq. arsenicalis, oz. ss.; ext. cascar. sag. liq., dr. iss.; tr. calumbæ, dr. vi.; syr. zingib. ad., oz. iii.; dr. i. ter die. *November 30, 1901.*—He has bronchial catarrh, with much wheezing in the chest and coryza; temperature 98·4. There is swelling of the inferior angle of the right blade-bone with tenderness. He is taking a senega and ammonia mixture. *December 16, 1902.*—Is recovering from his attack, during which his temperature rose to 102°, and his pulse to 120. There was much mucopurulent expectoration, and some brownish rusty sputum. His cough was exceedingly troublesome, so that he could not lie down at night; but, though left very weak by it, he gradually improved again.

December 30, 1902.—The note to-day is: There is a small lump over the lower angle of the right scapula, as though he had had a localised periostitis. The right clavicle is now scarcely different from the left. On the tenth and eleventh left ribs is a lump, as though a mass of callus had been formed about a fracture. The patient's back is curiously bent. It is nearly straight from the loins to the seventh dorsal; from above this it is very curved forwards. No abnormal signs in the chest, except a few subcrepitant rales at the posterior bases. *January 29, 1902.*—Feels much better; can move about more freely, though only feebly; cough less, appetite improved, sleeping better, very little pain. *March 19, 1902.*—While pushing in a drawer five days ago he suddenly felt a pain about his right blade-bone, and since then has not been able to move his right arm without a great deal of pain; and the lower angle of the scapula is very tender again, and thickened. *April 16, 1902.*—Raises much muco-pus; sleeps fairly, but has to get out of bed at midnight and sit in his chair to rest his back. He cannot lie down flat, but lies semi-recumbent upon several pillows.

April 23rd, 1902.—Has had much pain for a week in his back and sides. The angle of the scapula is only a little thickened. The right clavicle is about the same size as the left. The sternum is not tender, and its deformity, though marked, is less pronounced than it was. He is getting thinner and weaker. *June 6th, 1902.*—Has much pain from the back around his sides. The left arm near the shoulder was very painful a few days ago, but is well to-day. *June 18th, 1902.*—Much pain on pressing the spines of the dorsal vertebræ. *June 21st, 1902.*—Amounts of urine passed in 24 hours, 38 and 40 oz. *July 5th, 1902.*—When he stands there is a very deep crease or furrow, transverse, halfway between the ensiform cartilage and the navel, and below this the abdomen swells out into a prominent, uniformly rounded mass. There is no ascites. It is due to the bending of the spine. He got an attack of bronchial catarrh on July 28th, 1902, which was complicated by pleuro-pneumonia on August 9th, 1902, of which he died on August 15th.

The character of the urine was unchanged all the time he was under observation. The quantity during the warm summer months was scanty, averaging 19 oz.; during the winter months it was just twice as abundant, from 38 oz. to 40 oz. It was of an amber colour, with a slightly pinkish tinge if allowed to stand for 24 hours or more. It was generally turbid, and on standing nearly always deposited a considerable quantity of moderately loose particulate sediment, resembling phosphates or urates of a light salmon colour. This, after standing for five hours, constituted one-fifth of the volume of the urine. The specific gravity varied. Samples obtained from quantities passed in 24 hours were 1013, 1015, 1020, 1023, 1025, 1027. The reaction was always acid. If a test tube were taken and rather more than half-filled with clear urine, and the upper part of the urine heated, it became markedly turbid before boiling; but on heating it still more the turbidity nearly, but not quite, disappeared again, except at the junction of the hot and cold urine, where there was a dense white ring. This reaction with heat never failed to occur in any specimen so examined, and from this alone I think a diagnosis of "albumosuria" could be made. The explanation is simple. The proteid coagulates at 140° F. and dissolves again at higher temperatures, and leaves the ring of undissolved

Digitized by Google

albumose where the temperature had risen to, but not much above 140°, at the plane of junction of hot and cold urine. The heated portion did not completely clear, owing to the presence of a small amount of albumen, for if clear cold urine was taken and heated at the upper part to the boiling point a whitish opacity was occasioned, which did not clear on addition of acetic acid proving the presence of a little albumen. On adding strong nitric acid in excess to the clear cold urine a very dense precipitate fell, and on heating this it became almost quite clear again and of a pinkish wine-like colour. On allowing it to cool its turbidity returned. This clearing with heat and turbidity on cooling could be repeated as often as desired, and proved the presence of albumose and of a small quantity of albumen.

Urine rendered very turbid with strong nitric acid, and then boiled so as to become almost clear, and then filtered while hot, left the albumen on the filter and came through quite clear. This clear urine on cooling regained its marked turbidity. Clear cold urine treated with hydrochloric acid gave a slight turbidity which disappeared with heat, proving the presence of albumose. To clear cold urine liq. potassæ was added. It became quite turbid. On heating it the turbidity was rather increased. On rendering the urine acid again with strong acetic acid the turbidity disappeared, having been caused by precipitated phosphates. If to clear cold urine acetic acid was added and then potassium ferro-cyanide, a precipitate fell which was partly dissolved by heat, the solution becoming green. Heat did not render it as clear as it did another sample precipitated by strong nitric acid, as though the former reagent threw down more albumen than the latter. The clear cold urine mixed with an equal volume of a saturated solution of marine salt and then treated with excess of acetic acid was boiled and filtered while hot. The filtrate was clear while hot but became turbid on cooling, owing to the presence of albumose. *The sediment*, which nearly always was present after standing some time, looked like urates or phosphates, but was almost entirely composed of spontaneously separated albumose. If it were heated in a test tube it almost completely disappeared and returned directly it became cold again. If the urine containing it at a specific gravity of 1023 were mixed with an equal quantity of pure water and its specific gravity reduced to 1012, it still became turbid on cooling, after being dissolved by heat, and also when the specific gravity was still further reduced to 1006. A deposit of urates treated in this way did not come down in urine with a specific gravity of 1006, or of 1012.

A post-mortem was made about 18 hours after death. Permission could only be obtained to make such examination of the diseased bones as would not disfigure the body. While turning the corpse over from the supine to the prone position the left humerus was fractured just below its head by the weight of the body. An incision was made over the posterior surface of its upper third and over the shoulder-joint, when one or two ounces of purple grumous pus flowed out, probably from the cavity of the joint, which had been excessively tender over its capsule for some days before death. When the humerus had been freed all round, at the junction of its upper and middle-third an attempt was made to cut it across with a pair of bone shears, but the bone splintered into fragments, as though composed of earthenware. A longitudinal section through the centre of the articulating surface and of the shaft of the humerus showed an intra-capsular impacted fracture, the lower fourth of the articulating surface being buried in the upper part of the shaft. Beneath the whole of this surface and about an inch of the upper outer part of the shaft of the bone was an area of cancellous tissue of perfectly normal appearance, yellowish-white and firm. Separated from it by a definite line of demarcation was a purple-black mass. Quite a black line about half a millimetre in width bounded the latter, where it abutted on the cancellous tissue, and also ran in two lines, one curved and the other sinuous through its substance, so as to give a suggestion of lobulation. This mass occupied the upper end of the bone for about two inches below the attachment of the joint capsule. It was homogeneous, and of the consistency of a very firmly set jelly. It was not continuous with the inner surface of the bone, but only in contact with it, and could be separated from it with the handle of the scalpel, displaying a smooth slightly lobulated exterior, fitting into corresponding rounded shallow depressions in the bone, which appeared to have been eroded by the growth. No cancellous tissue remained in the interior of the bone, and the compact outer shell was nowhere thicker than a shilling, and was mostly as thin as a duck's egg. It was nowhere perforated, though at the margin of the impaction it was of extreme tenuity.

The bones of the neck were also removed and examined. The round lump felt during life beneath the right mastoid bone was the transverse process of the atlas. Its right superior articular surface was nearly perfect, a very small portion of its centre being absent. Its left superior articular process was only represented by a very small facet at its anterior and

Digitized by Google

its posterior extremity, between which the superior articulating process of the axis could be seen and felt. This was due to the considerable diminution in vertical thickness of the left side of the atlas, the remaining portion of which was largely replaced by the reddish growth. The posterior tubercle of the atlas was half an inch to the right of the spine of the axis, and its right inferior articulating process overhung the corresponding process of the axis by fully half an inch. The left transverse process of the atlas was immediately above and slightly behind that of the axis, while on the right side the two transverse processes were separated vertically by a full half-inch. The left second nerve issuing between the first two vertebræ was compressed. The atlas had manifestly suffered an incomplete lateral dislocation to the right from the axis, with some rotation forward to the right, and with crushing of the left side of the bone vertically. This, without doubt, took place when he struck his foot at night against the obstacle in the street and experienced the pain in the left side of the neck and head, due to pressure upon the suboccipital nerve. The fixed displacement of the head and neck was the expression of this dislocation.

The sixth, seventh, eighth and ninth dorsal vertebræ were removed and sawn vertically through the centre of their bodies and the left laminæ. The body of the seventh vertebra had disappeared in front, so that the intervertebral cartilages above and below it had come into contact, and it had been reduced to a wedge, with its apex slightly in the front of the middle of the antero-posterior diameter of the vertebræ. The sixth and eighth bodies were apparently normal in depth, but that of the ninth was somewhat reduced. All the vertebral bodies and all the laminæ, especially that of the eighth vertebra, were occupied by the same purplish substance, which seemed to be packed in the cancellous tissue so as to infiltrate it. There were, however, round areas composed wholly of the new growth, varying in size up to that of a French bean, in which no spicules of bone could be seen or felt. One of these, growing apparently from the seventh body, had very nearly perforated the intervertebral cartilage between it and the eighth vertebra. A rib was taken out, but was found to be broken across either during life or in its extraction, probably the latter. It was only a shell of bone filled with the new growth.

The right scapula, which during life had been swollen at its inferior angle, was found twice as thick as it should be, over an area as large as a half-crown piece, owing to a prominence on its dorsal surface. Here the bony structure was so attenuated that it could be pressed in by the finger, and on doing this a reddish fluid was squeezed out through small holes, where the bony lamina had been wholly removed. On the corresponding ventral surface the scapula was rough and looked eroded, though it was not bare. About an inch and a half of the outer end of the clavicle was left attached to the acromion, and where it had been divided it revealed the same red growth occupying its interior. Longitudinal section revealed its extension to within half an inch of the acromio-clavicular joint, where it abruptly ended and was easily separated from the healthy cancellous tissue beyond. Section of the acromion revealed healthy structure. Section of the inferior angle of the scapula displayed a mass about an inch and a half in diameter and half an inch in thickness, easily separable from the surrounding shell of bone, and not containing bony spiculæ. A section along the inferior border showed infection right on to the glenoid cavity. But throughout all this length the cancellous tissue could be traced, and the red material filled the interspaces, but seemed to consist of little masses, as large as split peas or less, which could be picked out of corresponding pockets almost adjacent to each other. The base of the acromion process where it joins the end of the spine of the scapula was, but for a thin shell, completely replaced by the growth without any cancellous tissue and with a lobulated outer margin. Two other smaller areas as big as peas were visible in the thick anterior edge of the spine, where it springs from the body of the bone. Portions of seemingly healthy bone separated them. Further examination revealed that only the free end of the acromion process was uninvaded.

Dr. E. A. Johnson kindy cut and stained sections of the growth, and of a portion of the rib, and of the humerus, examined them, and gave me a report. The growth appeared to be bounded externally by a narrow smooth limiting membrane in some places, and to be everywhere well defined. Its section showed blood-vessels in moderate numbers, with well marked walls. It consisted of small round cells, mostly with a single, well-defined nucleus, closely packed, or with a small amount of intercellular substance. This was homogeneous, but in places a few strands of fully formed fibrous tissue could be detected.

No degenerative process could be detected in the bone, and no proliferation of its tissues. The cancellous spaces were densely packed with round cells, and the vascular spaces were dilated and filled with this new invading growth. On the inner surface of the bone there seemed to be a slight excess of fibrous

Digitized by Google

tissue, and some excentric atrophy appeared to have occurred.

Dr. Chapman, of the Melbourne University, furnished me with the following report on the chemical analysis of the urine:—

"The urine, of which 20 oz. was passed in the 24 hours, was orange-yellow in colour. It was turbid, and gave a considerable deposit on standing, equivalent to one-sixth of the urine taken. The deposit was slightly pigmented, was not soluble on treating with dilute acids, and almost disappeared on heating, reappearing on cooling. The urine was strongly acid to litmus and had a specific gravity of 1024. On filtering a clear filtrate was obtained, which gave (*a*) a faint haze on boiling; (*b*) a marked ring on nitric acid, which disappeared on heating and reappeared on cooling; (*c*) precipitates with nitric, sulphuric and hydrochloric acids, dissolving on heating to boiling and reappearing on cooling, (*d*) no precipitate with acetic acid. The deposit removed by filtration was dissolved in water and gave the above reactions as well as the group proteid tests. To obtain the substance in a more pure form, urine was poured into strong alcohol and the precipitate filtered off. This slowly dissolved in distilled water and yielded an opalescent solution. This solution was again treated with alcohol and the precipitate separated. This precipitate was only partially soluble in distilled water, the remainder being soluble in 1 per cent. sodium carbonate. The solution in distilled water contained a native albumin giving all the reactions of serum albumen, that in sodium carbonate contained the substance which was deposited. The colour of the urine was due to urobilin, the spectroscope showing a distinct band on F. No other pathological substance of importance was found in the urine. The urine was examined frequently from November 4th until January 2nd and always contained this substance, but in variable amounts, and never in very large quantities. One obtained four or five grammes from about a litre of urine. Owing to the small quantity an elementary analysis was not made, but the substance did not contain phosphorus or sulphur. The principal reactions were:—

1. Precipitated by the mineral acids—nitric, sulphuric, hydrochloric, phosphoric—the precipitate dissolving on heating and reappearing on cooling. All precipitates soluble in large excesses of acid.
2. Not precipitated with acetic acid.
3. Precipitated with picric acid, the precipitate being unaffected by heat.
4. Gave the xanthoproteic and Millon's tests.
5. Precipitated by salts of heavy metals, as silver, lead, iron, mercury, etc.
6. Precipitated by neutral salts and acetic acid.
7. Completely precipitated by saturation with ammonium sulphate, but not completely precipitated by saturation with sodium chloride, magnesium sulphate, or ammonium chloride.
8. It did not give a biuret test.
9. It was soluble in very weak potash, and on standing was converted into alkaline albumen. It was then precipitated on neutralisation, and in acid solution was quite precipitated by 6 per cent. sodium chloride. This is a characteristic test for acid albumin.
10. Its coagulation temperature was 55° C in a slightly acid solution, but if the heating was done rapidly no precipitate formed, the fluid remaining quite clear. The temperature of precipitation varied with the acidity, being higher when the medium was slightly alkaline. Quantitative estimations were made of the various constituents of the urine. The urea gave 4·9 grains to the ounce, or 1·1 per cent.; the chlorides 4 per cent.; the phosphates 28 per cent., or 1·3 gr. to the oz.; the uric acid 18 per cent., or 8 gr. to the oz.

The urine, therefore, contains a substance of proteid nature which has been found by a number of observers and often called an albumose. Since it can be converted into alkaline albumin, it is probably more complex than this. Its reactions are different from an albumose resulting from digestion, and, indeed, the substance seems capable of being converted into peptone."

As before remarked, Dr. Bradshaw brought a case of this disease under the notice of the Medico-Chirurgical Society in two papers published in its transactions, 1898, vol. 81, p. 259, and 1899, vol. 82, p. 251. In these he very fully gave the characters of the urine, and its behaviour with various reagents. It was he who coined the name "Myelopathic Albumosuria," which I have used. He also gave a short *resumé* of all cases of which he could find records in British and foreign literature, and discussed the diagnosis of the complaint. He recognised the association of the bone disease, and the abnormality in the urine, and he was thus enabled on finding albumosuria to predict

Digitized by Google

the probable development of bone disease in his patient, and had the gratification of seeing ante-mortem evidences and giving post-mortem demonstrations of such disease.

The course of the disease is usually as follows: The patient, generally a man of middle or advanced age, finds himself getting thinner and weaker and paler, and experiences "rheumatic" pains in his trunk or head or neck. These may arise suddenly, or be suddenly aggravated by some strain or accident. They may vary very greatly in severity, and may nearly disappear for a time, but they return and get worse and may become intense. He may notice his urine turbid, and with a considerable deposit on standing. The bones of his trunk are discovered to be very tender at different spots, which vary from time to time. They are also palpably soft, appearing to yield to the pressure of the hand. As a consequence of this softening, the spinal column undergoes curvature, giving rise to kyphosis and gibbosity, and partly from pain and partly from altered relation of adjacent structures the mobility of the spine is diminished, and the patient moves about stiffly. The bones are liable to fracture, either from muscular action or from slight accident, or perhaps swellings may form on them, painful and apparently inflammatory, gradually resolving and disappearing, or remaining and progressively increasing as new growths.

On examination the urine is found to contain an abundance of so-called albumose. The patient, unable to work, can nevertheless move about, and unless confined to bed temporarily by some intercurrent affection, such as febrile catarrh, may get about almost to the last, and finally dies from progressive exhaustion or from incidental disease such as pleuro-pneumonia. At the post-mortem the viscera may display no evidence of chronic disease, the only changes being in the bones.

My case may be regarded as a typical one of myelopathic albumosuria. There was the persistent presence of albumose in the urine both in solution and spontaneously deposited. There were changes in the osseous system, evidenced during life by the fragility of the bones leading to repeated fracture, by their softness resulting in deformity from their compression, and by the tumours occurring on their surface. There was marked pain caused by pressure on the spinal nerve trunks as they passed through the intervertebral foramina, and by a sort of inflammatory process over the surface of the diseased bones. There was progressive loss of weight and strength, and death from intercurrent broncho-pleuro-pneumonia.

The attitude of the patient standing with the knees and hips slightly flexed, the peculiar and marked kyphosis due to the local gibbosity, the creasing transversely just beyond the costal margin across the epigastrium, with the globular abdomen below, was a reproduction and to some extent an exaggeration of the illustration given in Dr. Bradshaw's paper in the British and Foreign Medico-Chirurgical Transactions.

Diagnosis.—The nature of the disease in this case suggested itself to me when I first saw it in consultation with Dr. Good. The spinal tenderness and radiating pains and slight spinal projection made me think of caries and of carcinoma of the vertebral column in the dorsal region. The deviation of the head and neck and unilateral pain in the region of the suboccipital nerve pointed to partial dislocation in the cervical spine, and to carcinoma rather than caries, since the disease was multiple. But the triple fracture of the humerus near the neck within three years suggested some brittle condition of the bone. Caries would be unlikely. Carcinoma would have given more manifest local disease in the arm after three years' duration. So some general affection of the osseous system, causing weakness and brittleness of several bones, occurred to me as the most likely explanation, and myelopathic albumosuria as quite probable, so I asked for a sample of urine, tested for albumose, and found it, and determined an absolute diagnosis at once.

The disease may be mistaken for several other complaints, but there can be no confusion provided the urine is examined for albumose. Error can only occur if the possible association of albumosuria with the other symptoms is forgotten or unknown.

1. The patient may come complaining that he has noticed his *urine* to be milky, either immediately on passing or after it had been standing some time. (*a*) One may think of chyluria, but in this complaint the condition is due to the presence of fat, and in the other to albumose; a proper analysis will settle the diagnosis. (*b*) Or the sediment may easily be thought to be lithates, and unless the analysis is carefully conducted and the possibility of its being albumose remembered, the examination may confirm the error, because the sediment dissolves with heat and returns on cooling. I have already shown how the two deposits can be distinguished.

2. Or he may come complaining of his pains. (*a*) The pains may simulate chronic rheumatism, but the urine gives the albumose reaction, and this explains everything. (*b*) The aching and stiffness in the back, and the radiating pains

Digitized by Google

around the sides, worse on moving, or when in certain positions, and the projection of some of the vertebræ may suggest caries of the spine, in which disease albumose also may appear in the urine. But this albumosuria does not occur in caries unless there is suppuration, and it never occurs in such quantity as in this complaint; moreover in myelopathic albumosuria there may be affection of other parts, of the sternum or neck, which may be deformed, or there may be the history of repeated fractures. (*c*) The aching and stiffness in the back and the radiating pains may simulate carcinoma of the spine. The multiple affection of bones, and the outgrowths, would tend to confirm the suspicion of cancer. But albumosuria is not a feature of cancer of bone. In every case, therefore, this substance should be sought in the urine. If found, it disproves the carcinomatous nature of the disease.

3. The diagnosis of *osteomalacia* has probably been given in error in some instances. But this disease occurs in women rather than men, in young people rather than in elderly, often in the pregnant woman; the bones lose their lime salts, and so get very soft, instead of being simply thinned, hence they bend instead of breaking, and the disease affects the bones of the extremities as much as those of the trunk; hence the legs become fantastically deformed, a condition unknown in albumosuria, the patient consequently soon becomes bedridden, whereas in myelopathic albumosuria he can walk about often until within a few days of death; also the deposit in the urine is composed of phosphates, and not of albumose.

4. *Multiple myeloma.*—There probably exists a sarcomatous disease of bone, beginning in the marrow, and giving rise to tumours of bone, which is unattended by albumosuria, and which can only be distinguished by the absence of this abnormal constituent of the urine, otherwise the two diseases are probably clinically indistinguishable.

Pathology.—It would seem in this case as though the very great enlargement of the sternal end of the clavicle was not a new growth, but was rather of an inflammatory character, more of the nature of a periostitis. This was suggested by the extreme pain on movement, and great tenderness on pressure, and would appear to be proven by the complete subsidence of the swelling and the disappearance of all pain and tenderness. The inflammation, doubtless, had as its structural cause the new growth in the interior of the bone, and as its immediate exciting cause some slight injury to the part. This is shown by the onset of the pain over the right scapula immediately following muscular exertion with the arms and shoulders in pushing a drawer. Probably contraction of the muscles attached to the affected part dragged upon the periostem and bone where it was diseased and thinned, even to perforation, and excited a mild inflammatory process.

The neoplasm starting in the interior of the bone did not come through it as a growth, but removed the parts with which it came in contact without even causing them to bulge till they became as thin as tissue paper. In some of the reported cases of albumosuria in which the abnormal condition of the urine was recognised, no changes whatever were detected in the bones during life: no tumours, or deformities, or fractures; yet after death the peculiar soft new growth was found in the interior of several bones. But in my case, in the angle of scapula there was a prominence as well as attenuation of the dorsal lamina resulting from a protrusion of it by the new growth. It is quite conceivable, therefore, how under certain conditions the growth might form palpable tumours on the bones, consisting of a soft neoplasm covered by a protruded shell of bone; or, having quite perforated the bone, of the soft sarcomatous mass pushing its way among the surrounding tissues, and displacing them or causing their wasting by a process of pressure atrophy.

The most marked effect upon the bones appears to be their weakening, so as to lead to fracture. This man had sustained three fractures of his left humerus, one of his right radius, of the lower part of his sternum, of his atlas, and of several ribs. The falling together of the bodies of his dorsal vertebræ and the compression of his intercostal nerves explain the severe pains radiating round the sides of his chest to the epigastrium, as well as his peculiar kyphosis.

The various projections found in connection with the bones in this complaint may therefore be of several kinds:

1. Inflammatory swellings from periostitis and adjacent cellulitis, as in the clavicle.
2. Bulging of the bone by the increase of the growth within it, as in the scapula.
3. Projection of the neoplasm beyond its bony investment.
4. Fracture of bones and displacement of the extremities at the seat of fracture, as in the humerus and sternum.
5. Callus thrown out around the site of the fracture, as in the ribs.
6. Deformity due to compression by superincumbent weight of bones which have been softened by the diseased process, as in the dorsal spine.

Digitized by Google

In one respect my case differs from any of those recorded, namely, in the affection of the bones of the extremities. Bradshaw says: "As far as the limited examination which was permitted enabled us to ascertain, the characteristic lesions were confined to the bones of the trunk, but it is possible that the cranial bones were affected in a similar way." "A piece of the upper end of the tibia was sawn off. It appeared to be quite normal" In MacIntyre and Bence Jones' case, "the sternum and bodies of the vertebræ were similarly affected (*i.e.*, to the ribs), but the bones of the extremities were not affected." In Stintzing's case, "the post-mortem showed that there was extreme softening of the bones confined to the trunk." In these three instances, which are the only ones given in Dr. Bradshaw's paper in which reference is made to the extremities, any affection of the bones of the limbs is denied. In my case, however, the disease was most marked in the upper end of the left humerus, where it was probably very early present. The fracture of the distal end of the right radius may indicate disease there; but a Colles' fracture in an old man is no proof of neoplasm, and I was not allowed to remove the part for examination. To affirm the limitation of the diseased process to the bones of the trunk and exclude it from those of the extremities is erroneous. Probably such limitation is the rule, but its existence in a marked degree in the limbs is established by my case; and it seems very likely that the primary seat of the neoplasm was in the head of the humerus, if it had a primary seat; at least the humerus was the bone which, by its fracture, gave the first evidence of disease of the osseous system.

The duration of life in this complaint is difficult of determination. It begins insidiously. In my patient from the time he first broke his humerus until he died four years and a half elapsed. It is probable the fracture was due to affection of the bone by the neoplasm. Only 13 months intervened between the dislocation of his atlas and his death, and this last event took place about 11 months after his albumosuria was recognised. But this was not looked for before I first saw him. It is fairly certain he had the affection when he first broke his arm, and it is probable it had then been in existence long enough to produce such a weakening of the bone as to lead to its fracture. In a case recorded in the *British Medical Journal* for July, 1901, p. 75, albumose in small quantity and gradually increasing was discovered in the urine 18 months before any loss of strength or flesh was noticed, and about 20 months before a lump was detected on one of the bones. We might reckon, therefore, that if my patient had albumosuria 18 months before his humerus was broken, the total duration of his disease was about six years.

The treatment of the affection is absolutely unsatisfactory. I employed arsenic because of the disappearance of sarcoma-like enlargement of lymphatic glands under its administration, but I am disposed to think its beneficial effect here was insignificant. The lump on the clavicle disappeared during its use, and that on the scapula diminished, but these were probably more inflammatory than neoplastic, and their subsidence a coincidence. The regulation of his bowels, which were very costive, and the relief of his bronchial catarrh, were the chief elements in his treatment.

(Read before the South Australian Branch of the British Medical Association.)

NOTES ON THE DIAGNOSIS AND SURGICAL TREATMENT OF GALLSTONES.

By C. S. Hawkes, M.R.C.S. (Eng)., etc., Brisbane, Q.

In the short time at our disposal, I do not propose to weary you by a recital of the classical symptoms of gallstones and their treatment. Everyone knows the ordinary symptoms of an attack of gallstones—the acute sudden pain in the right hypochondrium, usually accompanied by vomiting and pain in the right subscapular region. These, with a certain amount of distension, possibly followed by fever and jaundice, constitute, as you know, an ordinary attack of what may be termed "gallstones." It is probable, if one could examine the bodies of a great number of people, gallstones would be found to exist without ever having caused these, or, in fact, any other symptoms whatsoever. Very few diseases in the human body present such a wide range between absolute freedom from symptoms and the most intense pain and other manifestations of disease. It will, perhaps, be worth while to consider the importance of the various symptoms that guide us in diagnosing the presence of gallstones from analogous conditions.

Taking the various symptoms in the order of their importance, pain is always the most objective, and, I think, the most important. The pain in gallstones is usually situated in the right hypochondrium, the maximum area of pain being somewhere on a line drawn from the tip of the ninth costal cartilage to the umbilicus. From this region the pain radiates to the right subscapular region, stones in the common duct giving rise to much less pain than stones in the gall-bladder. Now we have to consider whether any other conditions may

Digitized by Google

simulate this pain. Every symptom of gall-stones may be simulated by adhesions of the gall-bladder to omentum or to adjacent organs, so that the pain may be just as easily caused by adhesions as by a stone, and adhesions are very common when stones have been present for long. The next condition that may simulate this pain is the pain of gastric ulcer close to the pyloric opening. This may usually be distinguished by noting its relation to the ingestion of food. The pain of gastric ulcer nearly always follows the intake of food; the pain of gallstones comes on, as a rule, at night, and quite independently of this cause. With the pain of ulcer the maximum area of tenderness is lower down, and very often much more to the left than in gallstones, and nearly always more defined to a small circumscribed area. Another condition that sometimes gives rise to a pain that very closely and accurately simulates the pain of gallstones is the pain of lead colic; the other symptoms of plumbism will, however, put us on our guard. A few rarer conditions, such as intercostal neuralgia, locomotor ataxia with visceral crises, and some others, very rarely give rise to any great difficulty in diagnosis. The two conditions that perhaps we have to guard against most closely are the pain in certain cases of appendicitis and a very curious class of case where the pain is due to a movable kidney. In appendicitis, as you know, occasionally the appendix, instead of being turned down, is turned up, and the pain is referred to the right hypochondrium more than to the usual cæcal region. However, a close enquiry into the history of the onset and the usual tenderness near McBurney's point will usually suffice to put us on the right track. A very interesting difficulty in diagnosis arises from the pain associated with some cases of movable kidney. This condition causes pain in some instances in the right hypochondrium very closely simulating that caused by gallstones, not simulating an acute attack so much as the chronic frequently recurring pain of an old standing case. To take a case in point: A woman, aged 40, came to me with a lump in her abdomen, which, she stated, had been diagnosed as an ovarian tumour, and which caused her certain vague pains in the abdomen for some years, and, in addition, more or less constant pain and tenderness in the right hypochondrium with exacerbations at times. The tumour was an extremely movable right kidney, and on watching the case carefully I came to the conclusion that the pain was really due to the drag of the movable kidney, not to any gall-bladder disease. The pain was always relieved by a few days in bed. I operated on the kidney, stitching it into position, and took the opportunity at the same time of carefully examining the gall-bladder inside the peritoneal cavity. Neither gall-stones nor adhesions were present, but the duodenum and pyloric end of the stomach were unduly movable.

For a long time it was thought that these cases of pain about the gall-bladder, associated with a movable kidney, were due to adhesions. Mr. J. Hutchinson, jun., has pointed out and proved from careful dissections that adhesions are not responsible for the pain in all, or, perhaps, in any of these cases. In recalling the anatomy of the kidney one will remember that the duodenum is in relation with the kidney in its descending part. When the kidney gets movable it drags down the duodenum with it, causing kinking of the cystic duct. This causes obstruction to the outflow of bile and so sets up a gall-bladder pain that easily and accurately simulates the pain of gallstones.

Some years ago I was able to assist at an operation in a case of this sort. A young woman of 33 had suffered for years from attacks of pain that were thought to be due to gallstones, though unaccompanied by jaundice or other symptoms. The abdomen was opened and nothing abnormal was detected in the gall-bladder or duct It was known that a movable right kidney existed, but the significance of this fact was unnoticed. The operation, naturally, did not remove her symptoms, but later on a fixation of the movable kidney not only relieved the symptoms of the floating kidney, but also all her pain that was referred to the gall-bladder region.

Before passing over the symptom of pain it is worth while noting that the pain of gall-stones may be also complicated by the pain caused by adhesions, for a great number of gallstone cases sooner or later contract adhesions of the gall-bladder to omentum or to adjacent organs. When the pain in a gall-stone case extends well over to the left side, as it sometimes does, it is extremely probable that adhesions as well as the gallstone exist. In every case of gallstones where this symptom has been present and I have opened the abdomen, either dense adhesions to omentum or to the stomach have existed; and Mayo Robson has long ago pointed out the fact that this left-sided pain nearly always exists with firm adhesions. It is probable that the greater number of steadily recurring so-called "cramps in the stomach" are in reality due to the presence of gallstones, and a careful examination of most cases will elicit the fact that tenderness is at the same time present at a site midway between the umbilicus and the ninth

Digitized by Google

costal cartilage. This is very analogous to the tenderness elicited over McBurney's point in cases of appendicitis. Treves and Keith have shown that McBurney's point corresponds to the ileocæcal valve, and it certainly cannot always coincide with the appendix. The tender spot in gallstone cases coincides, I think, not with the gall-bladder but more probably the opening of the duct into the duodenum. Whatever the explanation, the clinical fact still holds ground that pressure on this point is highly significant of some gall-bladder lesion.

Jaundice in gallstones is a most variable symptom, and one on which, as a rule, no reliance can be placed; in fact, only about one gallstone patient in four ever gets jaundice. A person may have gallstones for years and not have the slightest trace of jaundice, or it may come on and be very severe with the first attack. Jaundice nearly always means that some inflammatory process has been set up in addition to gallstones, and it is this inflammatory condition that causes the swelling resulting in jaundice, not the mere presence of the gallstone itself. It is necessary to remember that a jaundice that does not remit, possibly with a distended gall-bladder, painless or not very tender, coming on in an elderly patient, usually means a tumour pressing on the duct, commonly cancer. This may supervene in a case where gallstones have been present for years. For about two years I watched a case of gallstones in a man of about 60. He would not have an operation done. Then he began to get more jaundice and fewer remissions and more pain, but the jaundice was deep and permanent. At his wish I then explored, and found cancer of the head of the pancreas, with a shrivelled gall-bladder full of stones.

Every now and then a gallstone in the common duct will cause jaundice, usually intermittent, and nearly always associated with very characteristic pyrexia. It is curious what a very large stone may exist without the slightest trace of jaundice until an acute inflammatory condition supervenes in addition. Some little time ago I operated on an old lady of over 60, removing a gallstone that weighed about 180 grains. Until the attack during which I operated she had never had either pain or jaundice, though the stone must have been present for years. The gall-bladder was small, shrunken, and adherent by dense old adhesions to the omentum, the stone itself being lodged in the cystic duct. Another stone of about the same weight I removed from a patient who had had a history of slight pain that she called "stomach cramp" five years previously. Since then she had had more or less persistent tenderness under the right costal margin, and over the usual spot above and to the right of the umbilicus, with, at times, jaundice so slight as to be almost imperceptible, yet, on opening her abdomen, I found a large stone firmly embedded in a small shrivelled gall-bladder and dilated commencement of the cystic duct. At no time had it ever caused any fever, which is at best an extremely variable accompaniment of gallstones. The lower down the stone is in the duct the more intense will the fever be. This is easily explained if one remembers how the fever is caused. It is always due to an infection from the bowel, and the higher up the stone is the less bile it can block back, and the less fever will be set up. Supposing, for instance, that a stone is impacted in the common duct, and an infection takes place above it, there is nothing to prevent this infection spreading back to the duct into both gall-bladder and liver, setting up, perhaps, an empyema in the gall-bladder, and an acute infectious inflammation of the liver; but, on the other hand, suppose that the stone was in the gall-bladder, or even in the cystic duct, the outflow of bile from the liver into the common duct will keep the ducts in the liver swept free from organisms, and so limit the inflammatory process to the gall-bladder and cystic duct above the stone. Fever, therefore, that accompanies a stone in the bladder or cystic duct is much less intense but more persistent than that accompanying a stone in the common duct. The pyrexia that accompanies a stone in the common duct is sometimes very characteristic and very peculiar. In its most typical form it very accurately simulates an attack of malaria, there being chills, a sudden rise of temperature to 102 or 104 degrees, and a rapid exacerbation of jaundice, followed in a few hours by a remission of symptoms and a fall of temperature to normal or subnormal, the temperature remaining down for one, two, or three days, and then the same sequence of symptoms takes place. This is very characteristic of a stone in the common duct which is causing a dangerous inflammation of the liver, and, I think, should be an indication for not unduly deferring operation. It is very rarely possible to feel any marked enlargement of the gall-bladder unless some other condition than simply gallstones is present, though if any infectious process in the liver exists this organ is enlarged. If, owing to the block, a marked distension of the gall-bladder with mucus or bile has taken place, then a definite enlargement of the gall-bladder can be recognised, but in a febrile case one must always suspect that an empyema of the gall-bladder may be forming. When a

Digitized by Google

definite enlargement has taken place, and if there is any good reason for suspecting this condition, early operation is imperative. As it is frequently impossible to diagnose beforehand the exact condition that will be found when the abdomen is opened, it is necessary to consider shortly what conditions would lead us to advise operation. The two questions we have to ask ourselves in any case are, first, whether an operation is indicated or not in each individual case, and, secondly, whether if operation is advisable it is better to perform the operation at once or wait until the acuter symptoms have subsided? Where the symptoms are such as to lead us to think that gallstones may be present, even with some complication, it is nearly always safe to operate. There are a large number of complications that may attend stones in the gall-bladder. The commoner are about 28 in number, but I will not weary you with a recital of the list; very few will lead us to give an opinion against operation. Of course, few would be inclined to operate for a first attack of gall-stones even if severe, or a second or third, even if only moderate; but where there is evidence of old-standing gallstones that have probably been present for years, with repeated acute colics or longer continued slighter attacks, an operation is, in every case, advisable. The following seven conditions always indicate operation when gallstone is suspected, and if a mistaken diagnosis has been made and some condition other than gallstone is discovered, in practically every case operation is still the best procedure:—

1. Frequently repeated attacks of colic.
2. Septic symptoms in a patient with gallstones.
3. Empyema of the gall-bladder.
4. Localised or generalised peritonitis starting in the right hypochondrium.
5. Persistent jaundice.
6. Obstruction of the intestines.
7. Fistulæ.

It is very improbable that large-sized stones pass, except by the extremely dangerous process of ulcerating, through into adjacent organs. Operation is the one treatment that affords certainty of cure. Supposing an operation has been decided on, one point is of importance in the preparation of the patient. For some reason or other some patients with jaundice bleed very freely and persistently, and because one can never tell beforehand that this unfortunate complication will result, it is wise, if persistent jaundice has been present, to put the patient for some days on 30-grain doses of chloride of calcium. This has the power of increasing the coagulability of the blood and renders a dangerous oozing less probable. The two suggestions that have been of the greatest importance in the surgery of the gall-bladder are due to Mr. Mayo Robson. They are, bringing the liver forward by means of a sand-bag placed across the dorsal region and opening the abdomen through the right rectus. Few conditions tend more to upset the equanimity of an operating surgeon than the groping for a bile duct in a fat patient, under perhaps a bad light in the old position with the patient flat on the table. The bile duct is, under these conditions, anything from three to six inches from the surface, cannot be seen, is with difficulty felt, and extracting the stone becomes a tedious and difficult matter. If the liver is well pushed forward by a sandbag across the back the bile ducts are brought within easy reach of the fingers, and can, in fact, in many cases, be brought level with the wound. Undoubtedly the best incision is that through the right rectus, and if it is well prolonged up towards the costal margin, it is perfectly easy in most cases to lift the liver and gall-bladder outside the wound, rendering any manipulative interference extremely easy. When the abdomen has been opened the first thing is to see whether adhesions are present or not. If present, these must be separated; then one must decide as to the best course to pursue with the gall-bladder. If possible, it is well to sew this up to the abdominal wall, so as to allow free drainage for a week or so. In order to do this a couple of stitches are passed through the gall-bladder and through the peritoneum and fascia of the abdominal wall, but not through the skin, unless it is wished to establish a permanent fistula. This latter point is of great importance, and its non-observance is responsible for a large number of permanent fistulæ. Having freely exposed the gall-bladder and packed it round with sponges, it should then be opened and any gallstones removed. Then the ducts should be thoroughly explored, pulling up the gall-bladder so as to straighten the ducts, and then with one finger inside the gall-bladder, and the other finger and thumb manipulating the ducts, making sure that no small stone has escaped, and if present working it up into the gall-bladder. Then by passing a probe, or, better still, a small scoop, into the gall-bladder and down the ducts one can often find and extract a small stone that has escaped recognition by the fingers, care being taken to explore the hepatic duct and also pass the probe to the duodenum to make sure the opening of the common duct is patent. In this connection one might point out that the glands along the border of the smaller omentum closely simulate in feeling the presence of small calculi in the common

Digitized by Google

duct. If, however, the stone is present in the duct or in a small shrivelled gall-bladder tucked away high up underneath the liver, a different course will have to be pursued. If in the duct, it is best to incise the duct directly, extracting the stone and sewing up the longitudinal cut. If in a shrivelled gall-bladder, two courses can be pursued: either a drainage tube can be fixed in the opening in the apex of the gall-bladder and its end brought out to the abdominal incision, packing it round outside with gauze, or else a funnel can be made of omentum, fixing this to the abdominal peritoneum and also to the sides of the gall-bladder. In one case in which I had to do this, a small gall-bladder high up underneath an enlarged liver, the bile flowed almost entirely by this channel after the first three days. In all cases it is advisable to allow for drainage by making a stab wound in the loin. As you know, there is a well-marked pouch on the right side, bounded below by the right kidney, interiorly by the spine, and into this pouch bile from a wounded gall-bladder will drain freely and not pass into the general peritoneal cavity till this pouch is full, and experimentally it will hold about half a pint to a pint. If you pass your finger down into this pouch it is very easy to cut down on it from outside, pass through the opening a big drainage tube with a gauze wick, and keep this in till bile ceases to flow through the opening. Thorough exploration of the ducts and careful drainage seem to be the main factors in the successful treatment of those cases which, if taken early, are amongst the most satisfactory class of case one has to deal with in surgery. In a few instances when the gall-bladder is thick, indurated, and functionally very little use, it is better to remove it. This is comparatively easy. The notes of the following case, where I performed this operation, will show the usual steps:—

Mrs. R., aged 34, sent by Dr. Butler, of Gladstone, with the diagnosis of gallstones, with thick enlarged gall-bladder, and suggesting removal of gall-bladder. She had had gall-stones for years, and had frequently noted them in the fæces. She got periodic attacks of pain, which was left as well as right-sided; had a big liver and a large gall-bladder. I opened through the right rectus, and found a large thick movable gall-bladder, with dense adhesions to omentum. These were separated, the gall-bladder opened, and numerous stones extracted; some of the stones were in the hepatic and common ducts, and were easily got out with a scoop. A probe then showed the common duct was free; in fact, it was so dilated that my little finger passed easily down as far as the duodenum. I then separated the gall-bladder from liver—this was easily done with very little bleeding—till I isolated the whole bladder. Then I removed it just like an appendix, making a cuff of the outer layer turning it down, tied the mucous membrane, inverted the end, and sewed the outer coats over it. The abdomen was closed without drainage, and uninterrupted and speedy recovery ensued. Unfortunately the diagnosis of the various conditions occurring about the gall-bladder is as yet far from perfect, but as more and more operations are done on the gall-bladder and the exact relation of symptoms and physical conditions noted, more and more accurate diagnosis will be made. In this, as in some other branches of surgery, I think the surgeon of to-day will be the physician of to-morrow, for it is only the operating surgeon who has an opportunity of accurately comparing conditions found in the living body with the symptoms presented immediately before operation, and it is only by repeated accurate observations of this sort that the experience can be gained that will ultimately enable us to make an accurate diagnosis, reliable prognosis, and give the best advice as regards treatment.

(Read before the Queensland Branch of the British Medical Association.)

FOUR CASES OF SUPPRESSION OF URINE.

By H. Critchley Hinder, M.B., Ch.M. (Syd.), Lecturer in Clinical Surgery and Honorary Surgeon Prince Alfred Hospital, Sydney.

I PROPOSE first to draw your attention to a brief report of four clinical cases illustrative of one of the most interesting and, at the same time, most alarming complications we dabblers in the healing art are likely to encounter.

Suppression of urine is without doubt the great bugbear of the urinary surgeon, and whether it be partial or complete is likely to tax his powers to the utmost in order to bring the case to a successful issue. Of these four cases two died and two recovered. We shall deal with the fatal cases first. A man of 36 years of age had been ill with attacks of renal colic for some years past. His illness had been diagnosed as stone in the kidney by different medical men, but he had resolutely refused operative interference. When I first saw him I found him to be a stout thickly-built man, who had been ill with severe attacks of right renal colic for some three or four days. During this period his wife assured me that he passed about a tablespoonful of urine at a time, and at long intervals. This urine was thick

Digitized by Google

and a dirty whitish colour. She thought that he appeared to be feverish. His temperature was 104° and his pulse 90, full and strong. Tenderness was most marked in the right flank, but as he was a very stout man nothing further could be definitely made out. I cut down on the right kidney, and found it three times the normal size. There was about an ounce of pus in the pelvis surrounding a stone as large as a hen's egg. Owing to the depth of the wound and the size of the stone I experienced considerable difficulty in extracting it; in fact, it took me ten minutes to actually remove the calculus. It was towards the termination of this effort that the anæsthetist noticed a considerable alteration in his behaviour, and on feeling his pulse found that the blood pressure had dropped, and the full pulse of 90 of two or three minutes before had suddenly become one of 150 and extremely small and feeble.

The patient remained in very much the same condition with regard to his circulatory condition, though he was quite conscious for some time. He died within 24 hours. I might add that although no post-mortem was allowed, I have every reason to believe that the other kidney was normal, inasmuch as there was neither history sign nor symptom of any defect in it.

The second case was a man of 28 years, who gave a history of several attacks of renal colic extending over four years. When I saw him he had passed absolutely no urine for eight days. His intellect was clear. He was restless and inclined to frequently change his position in order to get ease from pain in his back. His pulse was 84, fairly full and softish. His temperature was 99·4°; it had been over 100 for some days past. He had a frequent desire to pass urine, but a catheter had on two or three occasions only drawn off a little bloody mucus. There was considerable tenderness, swelling and dulness in the left flank. I cut down and found a very large kidney, distended with urinous fluid. One stone I removed without trouble, but another could be felt a little way down the ureter. While endeavouring to get this out my anæsthetist informed me that the pulse had suddenly dropped and could barely be felt. He was immediately put back to bed and the operation abandoned. In 20 minutes he was dead. The peculiar suddenness of the collapse was very remarkable, and, inasmuch as the patient lived for a good 20 minutes, his death can hardly, with any stretch of the imagination, be said to have been due to the anæsthetic.

The third case was a man of 28 years. He was taken ill with violent pains in the right flank, low down, the day before. He had vomited frequently. He had passed very little urine the night before and none during the day up to the time I saw him, about four o'clock. There was a rounded mass in the right flank, extending as low down as the anterior superior spine of the ilium. It was very tender, and apparently about four inches in diameter. About one hour after this I cut down on the kidney from the back, and found the organ to be very much enlarged, deeply congested, of a dark purple red colour, and very tense to the touch. The kidney was incised for about an inch, and immediately the blood poured out. After he had bled to the extent of 12 ounces I plugged the wound with gauze and put him back to bed. Between this time, about 5.30 in the afternoon, and six o'clock the next morning the patient passed seven measured pints of urine. Hiccough, which had preceded the operation, to a very slight extent worried the patient for two days, and then wore away. The urine gradually declined to the normal, and on the fifth day the patient passed per urethram a very small stone. I cannot say when it passed into the bladder. Evidently the attack was due to this small stone becoming impacted for a time in the ureter. The patient very rapidly recovered from what was at the first a very serious condition.

The fourth patient was not only an example of the subject we have under consideration, but also an instance of the wonderful recuperative power of the kidney and the infinite value of a conservative line of treatment.

A man, 25 years of age, came into hospital with pyuria. With the cystoscope pus could be seen pouring from his left ureter. I cut down on this kidney, removed a stone and drained off a fair quantity of pus. The wound healed in two months. Four months after the sinus broke out afresh and continued to discharge until he came into hospital 12 months later with complete suppression of urine, which had lasted about 30 hours. He was also suffering from acute pain in the right kidney, which was distinctly enlarged and tender. I cut down on this and merely opened the distended kidney sac as quickly as possible. I felt no stone, though profiting by my previous experience I made no special search for it. He now had a free flow of urine from the right kidney, and since the left kidney also started work again there was a moderate flow of urine and pus from it also. After a few days the left kidney improved. A skiagraph showed the presence of some phosphatic concretion in it; so that now, although no urine was passing through the bladder, still the kidneys were working well, both discharging urine through the loin, and I felt justified in

Digitized by Google

removing the concretion. This was done and urine in fair amount passed from this left kidney into the bladder, while that from the right poured out from the loin in undiminished quantity. After a short time I cut down on the right kidney again in order to relieve the passage down the ureter. I found nothing but cicatricial tissue about the upper end of the ureter. This was freed, and in a little time the sinus closed. He was allowed to get up rather early, and suffered from another attack of complete suppression which lasted 24 hours. This righted itself, and he now remains free and comfortable, with a sinus discharging a little pus from the left kidney. If the right kidney holds on satisfactorily for a little time I shall cut down on the left kidney, and may, perhaps, need to remove it, because it is and has been for a little time secreting practically no urine at all. Several times the man was in a very precarious condition indeed, and I feel sure that he owes his life to the fact that I paid more attention to the saving of it than to the setting out to do a stereotyped operation, and completing it without regarding his ability to stand severe handling.

I shall first, at all events, confine my remarks to anuria, which is brought about by conditions which are considered to come within the range of the surgeon, although there is but little doubt in my own mind but that the scope of surgery in this particular field will probably come in time to be considerably enlarged. A somewhat exhaustive enquiry into the literature of this subject is by no means attended with very great satisfaction, possibly owing to the fact that these cases are not particularly common.

Nicolai (1), in 1781, after speaking of such cases, puts the puzzling question: "How can stone in one kidney produce a stoppage in the other?"

Israel (2), in 1888 collected, all the published cases up to that date. These were reported by Charcot, Bourgeois, Howard Marsh, Barlow, Godlee, Bruce Clarke and Nepveu. (3) In 1894 he further reported four cases of his own in which there was very definite clinical evidence that the reflex stimulation of one kidney had a distinct influence on the other.

What experimental grounds have we for believing that such reflex stimuli do influence renal secretion? Claude Bernard, by irritating the nerves in the hilus of either kidney, produced an anæmia of the kidneys and a complete anuria. Cohneim and Roy (4) removed the nerves of the kidney and obtained an increased secretion and swelling. Eckhard (5) used the electric current with a like result. Grutzner (6) also, by acting on the vasomotor centre in the medulla, completely stopped the excretion. Cohneim and Roy produced a reflex anuria by stimulating the proximal end of the cut sciatic, and at the same time showed that the bulk of the kidney was diminished 12 per cent. Masius stopped the excretion by stimulating the distal end of the vagus, which he has divided in the neck. However, Eckhard has since shown that anuria thus caused is associated with a fall in the blood pressure throughout the body, and a diminution in the size of the kidney. (Goll). Eckhard stimulated the cut end of the vagus below the diaphragm, and no effect was produced on the urinary excretion. If the cervical spinal cord be divided there is a fall in the blood pressure, both general as well as renal, so that a condition of anuria is established. I have on two or three occasions seen patients who had a very low blood pressure due to sepsis, or sepsis combined with hæmorrhage, and because they did not die rapidly, and had passed, or at all events excreted a very small amount of urine, they were thought to be dying from suppression of urine. Such an error of judgment would have a very serious effect on the line of treatment to be followed.

One of Israel's cases was very instructive. It was a case of intermittent hydronephrosis. Every time hydronephrosis was present, and also a rise in the intra-renal blood pressure, a condition of anuria was gradually established. Directly the pent up fluid was drawn off the affected kidney began to excrete, and a profuse excretion came from the other kidney.

Goetzel (7), at the suggestion of Israel, made a series of experiments on the influence which an increased pressure in one ureter would have on the excretion in the opposite kidney. He made use of 12 dogs, but only three gave satisfactory results. He attributed the failure in the others to the very large doses of morphia which were administered to them. The right ureter was divided, and a catheter tied into the proximal end. Fluid was by this means forced into the pelvis of the right kidney, and it was found that as the pressure was increased so was there a diminution in the amount of urine passed by the opposite kidney, until the pressure in the right ureter reached about 200 millimetres of mercury, when the excretion in the left kidney absolutely stopped. If the pressure was taken off, the kidneys recovered themselves. It would appear, then, that anuria is brought about by a general diminution in the blood pressure and by a vaso-constriction affecting the renal vessels, which may be caused either by stimulation of the medulla, or by stimulation of nerve trunks or sympathetic nerves in other parts, as well as by direct

Digitized by Google

stimulation of the renal nerves. We find that this is borne out both clinically and experimentally. It must not be thought that in cases of obstruction due to stone the degree of anuria necessarily depends on the amount of obstruction in the ureter.

Reflex anuria is brought about at times by the presence of stone in the kidney before it has engaged the mouth of the ureter. Some 12 years ago I saw a man who had complete suppression of urine. He died after a week's illness, and post-mortem examination revealed the presence of a many-branched oxalic acid calculus firmly anchored in one of the calyces. Except the obstruction that may have been possible in this particular section of the kidney there was no gross mechanical interference with the excretory function of the kidney.

Let us consider for a moment the way in which the two men I have already spoken of died. One had a high temperature, with pus and very little urine in the pelvis of his kidney. The urinary excretion was very small in amount; his pulse was strong and full and below 100. The other had a slight temperature, a pulse full and strong, though there had been absolute anuria for eight days. He had a dilated kidney full of clear urinous fluid and a stone blocking the upper end of the ureter. In each case the blood pressure dropped suddenly during the course of the handling necessary to extract the stones. This appeared to me to be rather curious, and I am inclined to think was most probably due to the nervous shock rather than to rapid absorption of toxins let loose at the time the parts were laid open. I have noticed the same sort of quiet, full pulse in cases of intestinal obstruction, and the sudden fall of blood pressure directly the intestines are handled is most remarkable. Both these men were fully anæsthetised, and profound anæsthesia by no means eliminates operative shock, as some appear to imagine. I was in doubt at the time whether these men would not have died of reflex anuria if the stones, the cause of their trouble, had been left; but I am strongly of opinion that if the tension had been relieved the kidney would have recovered itself sufficiently to allow a complete operation to take place a little later on.

Acting on this I made the operation in the other two cases as short as possible and with a good result. Guyon (8) and Albarran urge the necessity for a short operation in the anuria of calculus.

Greig Smith, Badenheuer and Henry Morris all recommend nephrotomy, or it would be better, perhaps, to say nephrostomy, for calculus anuria due to calculus. Morris has remarked that some cases seem to die suddenly, and this same observation has been noted in connection with dogs whose ureters have been ligatured.

Morris (9) states that "nephrotomy should be performed in the gravest cases to prevent death from uræmia; in the slighter and intermittent cases to extract a stone which may at any time produce complete persistent anuria."

What I would wish to emphasise is that patients suffering from anuria are in a dangerous condition with but a poor resisting power, and that the main object of the operator is to save their lives, not to remove or even to bother to find out the cause of the anuria; that can be very well done later on. The point has been discussed as to when the kidney should be cut down upon. Cases have been recorded of recovery after operation on the eleventh and fourteenth day, whereas others have died on the third or fourth day.

Morris says that sudden death may occur in an anuric person who appears to be in fair general health. It is very evident, then, that our duty is to adopt operative measures as soon as we are sure that we have to deal with a complete, or almost complete, condition of anuria. We have to deal with two engorged kidneys, the one reflexly depending on the other. The history will usually indicate which is the kidney primarily affected; we cut into this and allow it to bleed freely, tension is relieved, and the normal function becomes re-established. Later on, when the patient has recovered, the cause of the trouble may be sought for and removed.

A simple nephrostomy may at times not only save the patient, but very often clears up the whole trouble, as Edebohls has recently pointed out in a series published a short time ago. A kinking of the ureter gives rise to hydronephrosis; the tension is sufficient to bring about an attack of anuria, and the adhesions formed after the operation of nephrostomy are sufficient to hold the kidney firmly to the back, so that further kinking does not take place. In my fourth case there was no stone in the right kidney, but at the second operation the surroundings of the upper part of the urethra were made so clear that the urine soon followed the usual course down the ureter.

I feel that in a paper like this I can do no more than draw your attention to the surgical work which has been done in connection with cases which many of us are apt to look upon as absolutely beyond the scope of surgery.

Even the few details which have been supplied you, both experimental and clinical, are very suggestive of the fact that the relief of

Digitized by Google

tension which must exist in an engorged kidney is extremely likely to be followed by a restoration of function.

Reginald Harrison (10), one of the most prominent pioneers in this particular subject, was struck by the relief he afforded patients upon whom he had operated with the expectation of finding a stone. This led him to operate in the same rational way in certain cases of acute nephritis which were not yielding to the ordinarily accepted medical treatment, and with the most gratifying results. Ferguson (11) also recorded two cases of recovery after operation for subacute nephritis. Edebohls (12) confines himself to a mere division of the renal capsule, and he, too, introduces another feature of interest. Certain cases of intermittent hydronephrosis in which there was in the interval albuminuria, with plenty of casts, completely recovered after division of the capsule and fixation of the kidney. Newman (13), too, mentions cases of transient albuminuria in cases of movable kidney. Pousson (14) has performed nephrotomy on patients suffering from subacute and also chronic nephritis with extremely encouraging results.

I hope at a later period to give you my own personal experience, for in acute and subacute cases it would be rational to suppose that the local blood letting for the relief of tension should have a markedly beneficial effect, nor would it be wise to too hastily pass judgment on a similar treatment being accorded to chronic nephritis, which is not associated with general cardio-vascular changes.

References.—(1), Pathology, par. 91, year 1781; (2), Ueber Nephrolothotomie bei Anurie durch Nierenstein einklemmung Tugleich ein betrag zur Frage der reflectorischen Anurie; (3), Erfahrungen über Nieren chirurgie, 1894; (4), Untersuchungen über die circulation der Nieren, Virchow's Archiv., Bd 92-3; (5), Beitrage zur Anat. und Physiologie, Bd. 5s., 157; (6), Beitrage zur Physiologie der Harnsecretion, Pflüger's Archiv., Bd. 11, 1875; (7), Untersuchungen über reflectorischen Anurie, Pflüger's Archiv., Physiolog., Bd. 8e., 1901; (8), Revue de Chirurgie, Nov., 1898; (9), Morris, Origin and Progress of Renal Surgery, Hunterian Lect., 1896; (10), Lancet, January, 1896; (11), Ferguson, Med. Standard, Chicago, June, 1899; (12), Edebohls, Medical News, New York, April 22, 1899, Med. Record, New York, December 24, 1901; (13), Newman, Lancet, January 18, 1896; (14), Annales des maladies des Organes Genitourinaires, June-July, 1902.

[Read before the New South Wales Branch of the British Medical Association.]

Hobart Hospital.—At the last meeting of the Board of Management of the Hobart Hospital a letter was received from the Hon. Dr. G. H. Butler, M.L.C., resigning his position as hon. medical officer. The following resolution was carried:—"That the resignation of Dr. G. H. Butler as honorary medical officer of the hospital be accepted with great regret, and the board desires to place on record its sense of the very valuable services rendered to the institution for a period of 17 years. Such services must have been a severe tax upon his valuable time, but have always been given most ungrudgingly for the benefit of suffering humanity. He was always at his post, early or late, whenever required." Dr. Butler was then appointed consulting surgeon.

THE FINSEN LIGHT TREATMENT FOR LUPUS.

By H. Simpson Newland, M.B., M.S., F.R.C.S. (Eng.), late Surgical Registrar London Hospital, Adelaide.

I feel that I need not apologise for venturing to read a paper on the Finsen light cure for lupus. Granted that the disease is an excessively rare one in South Australia, still the boundless possibilities before phototherapy have rendered the subject one of entrancing interest. No one, I suppose, believes that the cancer patient of 50 years hence will submit himself to the knife as his only hope of cure. Indeed, there are many reasons for thinking that it is in phototherapy that the much sought after remedy will be found.

Finsen founded his treatment on the following experimentally-proved facts:—1. The bactericidal properties of chemical rays of light. 2. The power of the chemical rays of light to produce an inflammation of the skin (*erythema solare*). 3. The power of the chemical rays of light to penetrate the skin.

I. The Bactericidal Properties of the Chemical Rays of Light.—The chemical or actinic rays of light are placed in the blue, violet and ultra-violet parts of the spectrum. The chemical effect is here at a maximum, the heating at a minimum. Sunlight is the best bactericidal agent we possess, and its bactericidal properties are due to the blue, violet and ultra-violet rays. The chemical rays of light inhibit the growth of the anthrax bacillus and typhoid bacillus. They exercise a destructive action on the bacillus pyocyaneus. The chemical rays from an arc lamp with iron electrodes and a current of five amperes can check the growth of a cultivation of the tubercle bacillus in 45 seconds. The light from an ordinary arc lamp can kill cultures of the staphylococcus aureus in four and a half minutes. The light emitted by a recent lamp can kill cultures in less than four seconds. This lamp is especially rich in violet and ultra-violet rays (Bang). It is interesting to observe the action of light on higher forms of animal and vegetable life. The earth worm is photophobic, and crawls away to the darkest nooks. Red light has the same effect as darkness, but the blue rays are distasteful to the worm, which will, if given the choice, prefer the red to blue. Decapitated worms act in a similar manner to entire worms. The proteus prefers the dark, and its comfort diminishes from agreeable obscurity to disagreeable light, according to the following scale:—Darkness, red light, yellow, green, violet, blue, white light.

The chameleon's skin contains many pigment cells. The position of the pigment in the cell

Digitized by Google

varies according to the impression which light makes on the reptile. If one-half of its body be illuminated through blue glass at the same time as the other half is illuminated through red glass, the colour of the reptile becomes almost instantaneously blackish under the blue glass, while it remains for a long time whitish under the red. Sunlight has a similar but slower effect on the skin of man. Witness the tanning (pigmentation) of the skin in a hot climate. This pigmentation in man is protective in nature; that is, the pigmentation prevents harmful action of the chemical rays on the tissues beneath the pigment cells. Horses and horned cattle are subject to a solar erythema. This is limited to the non-pigmented part of the skin.

Cattle and sheep fed on buck-wheat are liable to suffer from a vesicular eruption. This is much more marked in white animals than in those exposed to the sun. Animals kept in the dark do not suffer. A white cow coated on one side with tar had the eruption on the other side only. It has occurred to me that possibly the well-known immunity of certain white or albino animals may have some connection with the action of light. It is an interesting fact that in the manufacture of calf lymph, calves with a white skin are preferred, as the pustules develop better than in calves with dark hides.

Too much light destroys plants. Red colouring matter exists in the epidermal cells of certain plants, *e.g.*, beech trees, red beetroots. Similarly, when the wattle and gum sprout, the young leaf is reddish in colour. This red colouring matter will absorb the chemical rays of sunlight and prevent their harmful action on the young and tender leaf.

II. The Power of the Chemical Rays of Light to produce an Inflammation of the Skin.—Erythema or eczema solare bears witness, so far as man is concerned, to the harmful effect of the chemical rays of sunlight. This erythema was formerly believed to be due to the action of the heat rays. This has been disproved for the following reasons:—

(*a*). The erythema is common in travellers in Polar regions and in those who tour on glaciers. The temperature experienced is often below zero.

(*b*). A very strong electric light may cause a similar eruption. This is prevented by red globes being placed round the light.

(*c*). If the light from an electric arc of 1200 candle power be passed through a layer of water of sufficient thickness to absorb the heat rays, and if the light afterwards be passed through a plate of ordinary glass to exclude the ultra-violet rays, the effect produced upon the skin by excluding the two kinds of rays alternately can be studied—(1) Under the influence of all the rays of light, except the ultra-violet, the skin is unaffected; (2) under the influence of all except the heat rays the characteristic inflammation develops.

Pigmentation has also been shown to be due to the chemical and not to the heat rays of the sun. Your attention has been previously called to the protective nature of pigmentation. One may here refer to the action of a beneficent Nature in placing the pigments in the deeper cells of the epidermis and so protecting the corium. This very pigmentation is an obstacle to the application of the Finsen treatment to black races. That pigmentation depends on the chemical and not on the heat rays can be proved easily in the following way:—Paint a band of Indian ink round the forearm, expose the forearm to the sun for three hours on a hot day. Then wash off the Indian ink. The painted part is visible as a white band bounded on each side by well-marked erythema solare. In a few days the erythematous areas become pigmented. The forearm is again exposed, but this time unpainted. The previously painted portion now becomes erythematous; the rest of the skin is unaffected or becomes a little more pigmented. Anyone who has rowed knows how the unpigmented parts become red and sore after a row in the sun for the first time in the season. The colour of different races is easily explained. The colour darkens as we approach the equator. The pigmented skin absorbs the chemical rays. It will be pointed out later on that pigmentation is one of the obstacles to the successful application of the Finsen treatment in certain cases. Europeans who live in tropical climates get darker, and a negro in Europe gets less so. In the former case this is due to the increased, in the latter to the diminished exposure to chemical rays.

III. The Power of the Chemical Rays of Light to Penetrate the Skin.—(*a*) The chemical rays of light can penetrate the skin provided it is rendered bloodless. Blood is a great absorbent of chemical rays of light. Finsen proved this in the following way:—A sensitised plate was placed on one side of the ear. The chemical rays were focussed on the other side. After an exposure of five minutes it was found that the plate was not blackened. The experiment was repeated, but now all blood was pressed out of the ear between two glass plates. The sensitised plate was blackened in 20 seconds.

Digitized by Google

(*b*) Finsen placed some small sealed glass tubes containing chloride of silver under the skin of dogs and cats. He allowed some of the animals to remain in the dark, while he exposed the rest to direct sunlight. In the latter the chloride was blackened, but not in those animals kept in the dark. The chemical rays can thus penetrate the skin, but they can penetrate the bloodless tissues much more easily.

Having described the data upon which Finsen founded his treatment, I will allude to its practical application. Before doing so, I will briefly refer to the treatment of skin diseases by the exclusion of the chemical rays of light. In the middle ages red bed-covers and red globes were used in the treatment of smallpox. In China and Japan smallpox patients even now are clothed in scarlet, or kept in beds closed with red curtains. In Roumania it is an old practice to cover the face and body with red cloth. Whereas in the middle ages the treatment was empirical, in 1893 Finsen placed it on a scientific basis, and proved that the beneficial effect of red curtains, windows, etc., was due to the exclusion of the chemical rays of light. In consequence of this exclusion the smallpox vesicles do not suppurate, and the scarring is slight or absent. In smallpox it is the face and hands which are the seat of the deepest and most confluent scars. They are just the parts which are most exposed to the action of light.

It is only when light is concentrated in such a way that it contains as many blue, violet and ultra-violet rays as possible that its bactericidal property becomes so powerful that it can be used therapeutically with advantage. It is necessary to say here that, granted the bactericidal action of the chemical rays, it is still doubtful whether the curative agents is the light acting on the bacilli or the reaction set up by the light.

Lupus vulgaris presents very suitable features for carrying out the light treatment. It is caused by the tubercle bacillus and it is well established that the chemical rays are capable of killing the bacillus tuberculosis.

Apparatus Required for Treatment.—The fact that the rays of sunlight are practically parallel when they reach the earth, while the rays emitted by an arc light are divergent, necessitates a different apparatus for each. In England and Denmark sunlight is seldom employed, for the simple reason that the clerk of the weather is so capricious. In Australia, where we have more than enough sunlight all the year round, it could be profitably employed did the demand for it equal the supply. It costs nothing.

Sunlight.—To concentrate the sunlight, a lens of 25-30 cm. in diameter is used. It consists of a plane and a convex plate of glass set in a brass ring. The space between the two glasses is filled with two litres of a solution of methylene blue or of an ammoniacal solution of copper sulphate. This lens concentrates the chemical rays of sunlight, and at the same time absorbs most of the heat rays. The lens is mounted on a fork, which allows it to be placed in any position.

The portion of skin which is to be treated is rendered bloodless by means of a compressor. This consists of a metal ring in which two discs of rock crystal are set; one disc is flat, the other is convex. The curvature is varied to suit the shape of the part to be treated. It is pressed firmly on the diseased area and renders it anæmic. Cold water circulates between the two discs. It keeps the skin cool, and prevents the action of any heat rays that have passed through the concentrating lens. Each sitting lasts an hour. An area of skin varying in size from the size of a threepenny piece to a shilling can be treated at one sitting, so that the cure is necessarily slow.

The Arc Light as the Source of Light.—The source of light is an arc lamp, taking from 50 to 80 amperes at 70 volts pressure and generating light equal to 30,000 candle power. The rays travel through a series of lenses of rock crystal and of water chambers. The chemical rays are thus not only concentrated but filtered off from the heat rays, which are absorbed by the water chambers. The lamp is fixed to the roof at a height of 6 ft. to 7 ft. from the floor and is surrounded by a metal ring and cylindrical hood. Four collecting or concentrating tubes are attached to this metal ring at equidistant points. Each collecting tube contains four rock crystal lenses. Two lenses at the arc light end of the tube render the rays parallel. Two other lenses with a water chamber between them are placed at the other end of the tube. These concentrate the parallel rays, while the water between them absorbs the heat rays. The water is prevented from getting heated by means of a water-jacket through which water is continually circulating. After passing through the water-jacket it is carried by indiarubber tubing to the compressor. Having traversed this it runs to waste. The compressor used with the arc light is that used with sunlight. It may be applied and kept in position by elastic bands, or, better, by a nurse. When properly adjusted a red halo is seen surrounding a colourless centre of a little less than a shilling in size. As with sunlight, each sitting lasts an hour.

Finsen's original apparatus is cumbersome

Digitized by Google

and expensive, and has to a large extent been replaced by the more convenient but less efficacious Genou and Lortet, London Hospital, and Bang lamps. By means of these lamps the source of light is brought nearer to the patient, so that fewer of the divergent chemical rays are lost. The poles have been modified in various ways in order to give a light richer in the violet and ultra-violet rays. It has been found, however, that these lamps have not the penetrating power of the original Finsen apparatus. An advantage possessed by the new lamps is that of allowing a larger area to be treated at one sitting in a very short time. By means of the London Hospital lamp an area of skin 1½ in. in diameter can be treated in 15 minutes. Thus a great saving is effected in time and money.

Visible Effect of Light Treatment.—The application of the light is followed by hyperæmia, redness and the formation of a bleb. The bleb breaks and dries in a week into a yellow crust. Healing of the area treated is complete in 10 to 14 days. The scar left is at first hyperæmic. Finally it becomes smooth, soft, white and little noticeable. The reaction comes on 6 to 24 hours after the application of the light. The greater the reaction, as a rule, the better the result. The number of sittings for the treatment of a case of lupus varies from 1 to 400 or more. Where numerous sittings are necessary the light is applied every day. At Finsen's Hospital the average duration of treatment was four months. Enormous patience is therefore required. It is often difficult to know when to stop treatment. When the whole area has been treated and the scar seems healthy, a pause is made to allow the last treated portions to heal. A careful examination should then be made for isolated nodules of lupus, and if any are found they are treated. Patients are kept under observation for a few months after treatment.

Before treatment all crusts are removed by boracic fomentations, and the part is washed with a mild antiseptic lotion. A piece of lint with a hole in it is placed on the diseased part, and the compressor is then applied. After the treatment the part is dressed with an ointment of zinc carbonate and lanoline, or if there is much suppuration, with boric acid ointment. Cases presenting much thickening and infiltration undergo a preparatory treatment with pyrogallol ointment 5 per cent. When the inflammation caused by this disappears, the Finsen light is used. The ointment is said to enhance the effect of the light. The skin is rendered more penetrable, and time is saved. The nurses wear smoked glasses and sterilised overalls. Strict antiseptic precautions are observed.

Results of Treatment.—In 200 cases, Sequeira saw improvement in all. In 500 cases treated at the Finsen Institute the result of the application of light was favourable. Other observers have given similar reports. In Finsen's clinic, 130 cases were free from recurrence 1-5 years after.

The best cases are those in which the disease is small in extent and superficial. Such can sometimes be cured at one sitting. It is an advantage that the treatment is painless and that there are are no constitutional ill effects. Considerable after-smarting, due to the reaction, may ensue. The *worst cases* to treat are those which present (1) much scarring; (2) pigmentation; (3) vascularity; (4) deep infiltration. Such conditions are obstacles to the penetration of the chemical rays.

Difficulties of Position.—(1) On the skin, *e.g.*, the eyelids. (2) On mucous surfaces such as the pharynx, cheeks, gums and septum of the nose. Here X-rays may be usefully combined with the Finsen light. (3) Extent of disease. The treatment is tedious, and while the disease is being treated in one part it may be spreading in another.

The Advantages of the Treatment are:—(1) Reliability. Improvement is certain and constant. (2) Its painlessness. (3) The excellent cosmetic results. There is no destruction of tissue, healthy or diseased. (4) Less liability to relapse. The treatment does the surrounding healthy skin no harm, unlike scraping and excision. The treatment can therefore be thorough. (5) Avoidance of surgical measures.

There are, of course, disadvantages:—(1) Time. Enormous patience is required. (2) Expense. (3) Small area treated at a time. This has been remedied by the introduction of the new lamps.

Histological Changes.—The following histological changes take place (Macleod):—(1) The first change is the production of an œdema round the margin of the tubercle. (2) This is followed by œdematous destruction of the fibrous elements present, and the plasma cells become vacuolated, and the nuclei disappear. The giant cells are attacked in the same way. An important point is that the cells showed a definite tendency to become elongated, to form fibres, and thus lead to cicatrisation. Macleod comes to the following conclusions:—(1) The action of the chemical rays from an arc lamp on the granuloma of lupus is essentially destructive, and that this destructive process is indirectly produced and is simply the result of an ordinary inflammatory reaction; compare the long known effect of erysipelas on some cases of lupus.

Digitized by Google

(2) That the effect of the rays on the surrounding healthy tissue is negligible, so that the doubtful tissue is picked out and destroyed if it be diseased. (3) That the destructive process is followed by a process of construction similar to that which takes place in the healing of inflammation. (4) That the process of construction is capable of replacing the destroyed granuloma with healthy fibrous tissue, forming a pliable scar. From a histological standpoint the treatment is, therefore, an ideal one.

Action on other Skin Diseases.—On lupus erythematosus the treatment acts uncertainly. At the London Hospital it nearly always failed. Some good results have been obtained at the Finsen Institute and elsewhere. Rodent ulcer always heals provided that the pressure of the compressor can be endured. The ulceration heals and the induration disappears. Patients have not relapsed after a year. Sequeira was led to use the X-rays in a case of rodent ulcer on which the compressor could not be borne. The result was very successful, and the X-rays are now almost invariably used for this disease. I can testify to the extreme value of this treatment. Even the most hideous examples heal. Where nævi have been improved, such improvement cannot have been due to the bactericidal action of light. In alopœcia areata good results have been obtained. If, as Saboraud believes, this is a parasitic disease, one would expect success. The disease is a superficial one and accessible to the bactericidal action of light.

(Read before the South Australian Branch of the British Medical Association.)

TREATMENT OF NYMPHOMANIA BY DIVISION OF BRANCHES OF INTERNAL PUDIC AND INFERIOR PUDENDAL NERVES.

By J. A. G. Hamilton, M.B., Hon. Gynæcologist Adelaide Hospital, Lecturer on Gynæcology Adelaide University.

I THINK I may safely say that no excuse is necessary for bringing forward any treatment which would give us some satisfactory method of curing this troublesome and in most cases incurable condition. We all know the amount of suffering and mental distress it entails on the unfortunate sufferer, especially in the case of a refined, well-educated young lady.

The following notes were supplied to me by the lady's medical attendant:—

Miss B., *æt.* 36, a bright, intelligent, well-educated girl. Has been treated, on and off, for 18 years, ever since menstruation began; much worse past six years; had undergone treatment at the hands of several nerve specialists in London; has taken potass. brom. and potass. iodide regularly at intervals. Has tried open-air life; other occupations, such as nursing, etc.; has taken several long sea trips; has homicidal propensities at times; is very fond of music, painting, etc.; sleeps badly; is very despondent about herself and very anxious to be cured. Patient denied having masturbated. Consulted a surgeon in Melbourne some time ago. He removed the clitoris and part of each labia minora. Felt relieved for a few weeks, but is now worse than ever.

On Examination.—Patient is pale and anæmic-looking, has an anxious expression; eyes are restless, roving round the room all the time patient is talking; hands are never still; pulse 100, regular, small volume, low tension; temperature sub-normal; tongue clean, moist, flabby; appetite poor; bowels regular; menses regular, last four or five days; no pain; sleeps badly, always has troubled dreams; has constant frontal headache.

April 3rd, 1902. *Operation.*—On inspection of external genitals it was found that the labia minora had become adherent as result of former operation. The cicatricial tissue just at region of clitoris was divided by a longitudinal incision and sutured transversely, so as to alter the plane of old cicatrix and bring labiæ into proper position and separate labia minora. Then an incision was made on each side as if for lateral lithotomy, but further back. Just opposite the tuberischii the anterior end of incision is opposite the anus, while in lithotomy it is in front of it. The ischial tuberosity is one point to be sought for, whilst the edges of gluteus maximus is another. Under the edges of this muscle is the stiff border of the sacro-sciatic ligament, and at this point the internal pudic nerve commences to split up into branches—(1) the inferior hæmorrhoidal, (2) the perineal, (3) the dorsal nerve of penis or clitoris, according to sex. The perineal is the largest; it runs forward along the outer wall of ischio-rectal fossa and breaks up into superficial and deep branches. In the female both branches determine in labia majora; two deep branches supply the perineum; one branch runs with corpus spongiosum of penis or clitoris, and the other branch runs on to it. All these branches of the internal pudic were either cut or stretched. This nerve communicates with the inferior pudendal which comes from the lesser sciatic. By retracting the skin I was able to get the inferior pudendal on a hook and divide it. The wounds were brought together by deep catgut and superficial horsehair sutures. They healed well; stitches removed on seventh day.

Digitized by Google

Patient improved wonderfully; much brighter; eating and sleeping well; resumed her nursing. In November, six months after operation, she began to look pale and anxious again, and her old trouble returned to a slight extent, but not nearly so severely. She has since left the State for England, but before leaving she expressed herself as feeling much better. Sleeps well, no horrid dreams, and she fully expected the sea trip to complete the cure. I cannot claim this case as a complete cure, but I feel convinced this treatment is on the proper lines. This was my first operation of the sort, and had I to do it again I would excise a portion of each nerve, so as to prevent their reunion, instead of merely stretching or dividing them. I was induced to try this operation by learning from Professor Watson that Mr. McCormick, of Sydney, had performed a somewhat similar one for masturbation in a male, with satisfactory results. The distribution and relation of these nerves are well shown in a diagram in Howard Kelly's work on "Operative Gynæcology," vol. i., p. 75, fig. 46.

(Read before the South Australian Branch British Medical Association.)

SARCOMA OF SUPERIOR MAXILLA.

By C. H. W. Hardy, M.B., Ch.B., Melbourne, Ballarat (Vic.).

To-night I wish to refer to two cases of partial extirpation of the superior maxilla for sarcoma.

M—— B——, aged 60 years, married, four children, no family history. At Christmas, 1897, an upper molar tooth on the right side came out. At the beginning of February, 1898, a growth appeared where the molar tooth had been. On the 12th March, 1898, a sound tooth was removed by Mr. McBurney, and a section of the growth cut for examination.

Mr. Treloar, after examining the specimen, pronounced it a spindle-celled sarcoma.

The growth now extended almost to the mid line of the vault of the mouth and forward as far as the incisor teeth and deep into the antrum.

On the 26th March, 1898, under chloroform administered by Dr. Salmon, and assisted by Dr. R. Scott, I removed the superior maxilla, with the exception of the orbital plate. The bone was very friable, and bleeding very free. The patient made an uneventful recovery, and was soon able to eat meat and ordinary diet.

Six months later she had an attack of influenza, with congestion of the lungs, and then noticed a cervical gland, on the side operated upon, swollen.

She refused to allow the gland to be removed. It was then about the size of a large marble, and did not increase much in size up till the time of her death, which occurred on the 18th July, 1899, from hæmoptysis. There was no recurrence *in situ*.

J—— T——, male, aged 12 years. After a seven days' toothache consulted me. I found an epulis beside the first molar tooth. Immediate operation was advised, but a dentist undertook the cure, and removed a tooth from within the area of the growth, with the result of an intensely rapid increase in size. The growth was now the size of a pigeon's egg, and extended well into the vault of the mouth.

A section of the growth was taken. Mr. Treloar pronounced it a small round-celled sarcoma.

At the Ballarat Hospital, on the 29th December, 1900, 14 days after attention was first drawn to the part, I performed tracheotomy, and excised the superior maxilla on the left side, with the exception of the orbital plate.

The boy made an uneventful recovery, and I now produce him to show how well the gap, which is usually left after these operations, has been filled up. I accomplished this by dissecting up the mucous membrane of the cheek, and then suturing it across to the mucous membrane of the hard palate of the opposite side. The removed portion (produced) shows well the size and situation of the growth.

In both of these cases chloroform was the anæsthetic administered. The position of the patient during operation was with the head slightly raised and turned towards the unaffected side. All bleeding vessels were immediately seized and tied, and Ferguson's incision was followed.

The parts removed in both these cases are produced to show that in the first instance, although good margin was left beyond the part removed, though recurrence did not take place *in situ* still it did take place in a cervical gland on the same side, and may be the hæmoptysis was due to recurrence in the lung.

In the second case good margin was also left beyond the growth, and is warranted by the fact that the recurrence has not taken place.

As to recurrence, Butler says: "Malignant disease of the upper jaw, whether sarcoma or carcinoma, appears to display its malignancy chiefly in the local destruction which it produces, and in its great tendency to recur *in situ*. Affections of the lymphatic glands and dissemination in other parts of the body appear to be comparatively infrequent. The disease in almost all the unsuccessful cases returns *in situ*, and the recurrence is usually very speedy—within a few weeks or months of the operation."

Schlatter says: "The lymphatic glands in the region of the bifurcation of the carotid are generally attacked by metastasis."

Digitized by Google

As to operation mortality opinions differ. Cheyne and Burghard state: "Out of a considerable number of these operations we have not lost a single case."

Martens states that out of 86 cases 72 were total and 12 partial extirpations. Of these, 24 died of operation, 33 recurred, 21 were well, of which five were epithelioma, three glandular carcinoma, two round-celled sarcoma, one round and spindle sarcoma, one endothelioma, four giant-celled sarcoma.

Butlin, out of 14 cases upon which he operated on, reports that four died of operation, five died of recurrence, two alive and well within three years, three alive and well more than three years.

In the Greifswald Clinic four out of 18 died.

Bryant reports in 230 unilateral re-sections 14% resulted in death; Kœnig gives mortality as 30%; whilst at Zurich Clinic, out of 34 re-sections one death occurred from operation.

As to extent of removal, both Butlin and Martens recommend very extensive operations for the removal of the primary disease; but Butlin writes: "The necessity of the removal of the orbital plate in every case of epithelioma is still not clearly proved to my own mind."

Before concluding, I would like to contrast the almost complete absence of pain of sarcoma in this situation with the "unbearable pain and intense frontal headache of naso-pharyngeal sarcomata."

(Read before the Ballarat Branch of the British Medical Association.)

CLINICAL AND PATHOLOGICAL NOTES.

VACCINATION AFTER SMALLPOX.

UNDER the above title the *British Medical Journal* of January 31st has published some facts proving the susceptibility of individuals to vaccination who had previously suffered from smallpox; but, being unable to state the duration of interval, they ask their readers to quote cases, giving every available information upon the latter. Now, the few facts which I have observed on the subject in question I should gladly forward to the *British Medical Journal* were it not for the lengthened time it takes for communications to reach them from here, when most likely the subject will have been thoroughly settled. I therefore desire to publish the following facts, observed by myself whilst House Physician to the Smallpox Hospital in Liverpool, England, during the great epidemic of 1893 and 1894. During my tenure of office there I had under my care upwards of 400 cases, so that there were ample opportunities of studying the disease from every standpoint. As an experiment, I first began vaccinating with pure calf lymph all patients suffering from variola admitted; but later, as a matter of duty, with the following result:—In the unvaccinated and during the early stages of prodromal rash and papular eruption, vaccination was performed on the arms or other suitable part with pure calf lymph. If the vaccination was successful the case was converted from a very serious and probably fatal one into a harmless and modified variola. The disease ran through its usually severe stages until the time of pustulation, when like a charm the opaque vesicles would become less tense, wrinkle, and finally desiccate without any sign whatever of secondary fever. On the other hand, the vaccination eruption would pass through its stages with the usual exactitude and severity. Although the variola virus has gained two or three days start over the vaccinia virus, the latter overtakes the former and becomes pustular in time, as it were, to prevent the secondary fever and thus abort the attack.

My failures were very few, and those I attributed to inferior quality of the lymph used or too late application of it to the patient, as when vaccinating in the commencing vesicular or vesicular stages no modificationof the variola whatever resulted, and the vaccination did not take. There is no keener battle to be witnessed than that between the virus of smallpox and vaccinia. If the latter is successful, on the eighth day it stands alone, triumphant, angry, the victor, surrounded by the former, vanquished and annihilated.

The vaccination was never once successful in those cases of smallpox occurring in the vaccinated. As no mention of facts observed, similar to the above, have, so far as I am aware, been published in any text-book on medicine or any medical publication, they may therefore prove of interest to your readers.

E. S. HAWTHORNE, L.R.C.P., F.R.C.S.
Mudgee.

APPENDIX VERMIFORMIS OF UNUSUAL SIZE.

ON the 17th March I removed from a man, aged 22, a vermiform appendix which was much the largest that I have ever come across in my limited experience. It measured 9 inches from its tip to the place of ligature, and was about the thickness of a muscular man's middle finger. At the time of operation the appendix had ruptured, and was oozing offensive pus. The patient thought that he had suffered about 20 attacks before he submitted to operation.

Adelaide, S.A. C. E. TODD, M.D.

Digitized by Google

REVIEWS AND NOTICES OF BOOKS.

TEXT-BOOK OF ANATOMY. Edited by Professor D. J. Cunningham, M.D., F.R.S. (Edinburgh). Pp. xxix., 1309; 824 figures, partly coloured. Edinburgh and London; Y. J. Pentland. Sydney: Angus & Robertson. 35s.

The work before us forms a welcome addition to the number of standard English text-books of anatomy. This statement does not imply that the domain of the work is not already occupied by more or less worthy competitors, or that it widely differs from some of these in its scope and intention. For various reasons, however, the study and teaching of anatomy cannot fail to be benefited by the accession of a fresh and masterly presentation of the facts of the science in modern form, and untrammelled by the traditions, and to some extent by the descriptive material, of earlier systems and editions. In any case the high prestige of the editor and of his collaborators, as well as its own many intrinsic excellencies, will sufficiently commend the book to a large circle of students and teachers.

The work has been produced on the system of composite authorship, with editorial co-ordination. We are informed in the preface that all the ten contributors to the volume, with one exception, have been pupils of Sir William Turner; and that all but two have at some time served as his assistants. The book therefore possesses a special interest and significance as a sort of "Festschrift" to the *doyen* of British anatomists, to whom the volume is dedicated, and affords a further indication of the depth of the mark which this distinguished man has made in the science of anatomy in the British Isles and far beyond them. To say that the book is worthy of association with the name of Sir William Turner is to offer no mean tribute to the authors.

That the work as a whole has been excellently carried out admits of no doubt. Its plan is practical and convenient, if not specially novel, and its execution has been thoroughly and ably sustained. Naturally the several sections vary somewhat in force and character, but as a whole the descriptive writing is graphic and accurate. Whilst all the sections reach a high level, that on the central nervous system, written by the editor himself, in characteristically lucid style, forms a masterpiece of anatomical description.

As is noted in the preface, the sections dealing with the topographical relations of the viscera contain a great deal that is new, embodying as they do the results of the most recent investigations by means of the study of formalin-hardened material *in situ*. A very high practical value, therefore, attaches to this portion of the work. A very important section is that dealing with surface and surgical anatomy, to which a greatly increasing attention is being devoted in modern treatises on anatomy.

The numerous illustrations, which form an important feature of the book, are, for the most part, of a high order of excellence. They are all in some sense new, and "the vast majority are new in the sense that they are original." A very large number of them leave little to be desired. The osteological figures in particular, and those of microscopical sections of the central nervous organs, are very fine, the latter reminding one of the exquisite drawings illustrating the "Nervensystem" in Kölliker's well-known "Handbuch."

It is, perhaps, idle to canvass the merits and demerits of the plan of co-operative production of scientific treatises which has nowadays become practically inevitable in so many branches of science, on account of the enormous expansion and specialisation of their numerous sub-departments. But there can be little doubt that the originality of treatment and thoroughness in detail, which are thus secured, are purchased at some cost in the direction of the unity and harmony of the whole. It is, of course, possible to minimise this sacrifice by the effective exercise of the editorial prerogative. But this is a matter both difficult and delicate. In the present instance the editor has, probably justly, recognised that a too rigid insistence on uniformity would involve the risk that "the individuality of the author, which forms a characteristic feature of each article as it stands, would thereby be damaged." As a result of this attitude, minor differences and incongruities do here and there emerge as illustrations of the lack of perfect unity involved in the conditions of production.

Nowhere is the want of complete congruity so manifest as in the occasional discrepancies in nomenclature occurring in different sections of the work. Doubtless this is to no small extent traceable to the varying and even chaotic condition of English anatomical terminology at the present day. Nevertheless, it cannot well be considered too exacting to demand a tolerably complete consistency at least within the limits of a single text-book. It will, we believe, be generally admitted that the necessity has become rather urgent for unification and simplification of our English anatomical nomenclature. The extraordinary plethora of synonyms which cumber our text-books is a heavy incubus upon the student. In the book before us the authors have largely avoided the introduction of duplicate and alternative names, though in a number of cases it has evidently been judged impossible wholly to ignore them. Henle's example might well have been followed in relegating synonyms to footnotes. A formal unification of terminology has been attained by the introduction throughout the text, but within brackets, of the names adopted by the "Deutsche anatomische Gesellschaft" in the system of nomenclature now known as the "B.N.A." This is, perhaps, a wise provisional measure, though in the meantime it possesses little immediate value or significance for the English-speaking student. Of much more importance for English anatomy at present is consensus of opinion and practice in the selection of the most suitable series of single terms from among the various synonyms now in use, and the definite elimination from our terminology of the less fit. For this end the "B.N.A." names may, in the interests of conformity, occasionally serve to determine the selection. More might, we think, have been accomplished, or attempted, in the direction of nomenclatural revision on the lines above indicated. Along with the absence of complete unanimity in regard to the use of names by the several authors, we also observe a few instances of the exercise of individual initiative in the modification of hitherto accepted terms. Any such arbitrary innovations surely demand the most energetic protest. Thus, on p. 108, why should we be asked to adopt "condyl*ic*" in place of "condyl*ar*," or the still older, if less appropriate, "condyl*oid*?" And, after all, we are invited to read "anterior condyl*oid* foramen" on p. 654, and "posterior condyl*ar* foramen" on p. 841. We trust that "myelococle," in italic type on p. 28, is a misprint, or at least a *lapsus calami*, although it appears also in the index. Obviously it should read "myocoele." Again, what authority is there for "scler*at*ogenous" on p. 28? or for "stom*at*odæum" on p. 32 and elsewhere? Kollmann gives "stomadæum," most English writers "stomodæum"; from whence comes the justification for "stom*at*odæum?" "Spermat*ocysts*," occurring twice on p. 13, is, of course, a misprint for "spermatocytes."

In the section on Osteology, both of the terms "condyle" and "epicondyle" are given in the

Digitized by Google

description of the humerus, but the latter term is quite definitely adopted in the further description and in the figures. (Why, again, "epicondylic?") But when we turn to the section on Myology, and note the description of the attachments of muscles, we find no reference to "epicondyles." The term reappears in the section on Surface Anatomy, where it is used indiscriminately along with the older term "condyle."

It is noteworthy that changes in the direction of more modern usage have by no means been tabooed. Amongst others, we note with satisfaction the adoption of "decidua capsularis" and "decidua basalis" in place of the older "decidua reflexa" and "d. serotina." Also, that in the nomenclature of the spinal nerves in the section on the Peripheral Nervous System the term "thoracic" is employed in place of the now misleading term "dorsal." On the other hand, we find that in the section on the Central Nervous System, the region of the cord from which these nerves is given off is described as the "dorsal" region, and the nerves themselves as "dorsal" nerves. The thoracic vertebræ, too, are generally, though not invariably, named "dorsal."

We think the entire elimination of the term "inferior maxilla" is highly desirable, as is also the sole use of the term "spheno-mandibular" for the so-called "internal lateral ligament of the lower jaw." The change from "retrahens aurem" to "M. retr. auriculam" would be advantageous in accordance with "B.N.A." usage, and with that of p. 702 of the text-book itself, where we read "M. transversus auriculæ." The description of the fibula, different from that hitherto current in most English text-books, and on the lines of Sir William Turner's lucid conception of the bone, must be welcomed.

We consider the description of the vertebral aponeurosis and its relations to the deep fascia of the back and to the latissimus dorsi muscle as somewhat misleading. It fails to exhibit the fundamental character of the vertebral aponeurosis as morphologically the primitive superficial sheath of the dorso-lateral muscular mass, subsequently overspread by the latissimus-extension of the ventro-lateral mass. The serratus posticus layer is also originally entirely superficial to it.

We regret that in the description of the pelvic fascia the conception of muscular pelvic diaphragm has not been utilised as the dominant one. The true continuation of the parietal pelvic fascia below is that which is carried in upon the upper service of the muscular diaphragm, not the obturator fascia lining the ischio-rectal fossa. Practically all except English anatomists are agreed upon this view.

In the preliminary account of development all reference to the existence of a "head process" is omitted, and the account of the origin of the notochord is thereby vitiated. No doubt the omission makes for apparent simplicity, but only by ignoring a highly significant preliminary stage. The stage of head-process formation cannot be dispensed with in even a first sketch of mammalian development.

We miss an adequate account of the early development of the skeleton. For this we are referred from the section on Osteology to pp. 28 and 45 of the embryological introduction. There is, however, practically nothing in these pages to assist the student to any rational conception of the histogenesis of this important system. Thus we read (p. 88) that "the vertebræ are developed by ossification of the cartilage which surrounds the notochord," etc. This is inadequate and, therefore, misleading in the absence of any information as to the early organisation of the "membranous vertebral column" beyond what is to be found on p. 28.

It is, we think, to be regretted that Professor Cunningham, in the masterly account he has given of the central nervous organs, has not seen his way to adopt the terms dorsal and ventral in the topography of the spinal cord, and the nomenclature of the nerve-roots; and also the terms medial and lateral for internal and external respectively, as in the case of the corpora geniculata.

The vexed question of the mesodermal or ectodermal origin of the sympathetic nervous system is discussed by Professor Paterson, with an obvious and natural predilection for his own (mesodermal) theory. The reader would hardly gather that Paterson is supported by few other embryologists.

In the section on myology the contour areas of muscular attachments are not in all cases above criticism. We may specify the area for the gluteus minimus in fig. 160, that for the abductor brevis in fig. 155, and the area for the tendo Achillis in fig. 174, where the area has been marked in in entire disregard of the obvious modelling of the bone.

References to literature have been almost entirely left out as outside the scope of a text-book for the student. Perhaps this is wise on the whole, though it leaves the more advanced student without any indication for further study. Notes on variations are only introduced systematically in the sections of osteology and vascular system, though some of the more frequently occurring muscular and nerve abnormalities are referred to and described.

But if, indeed, a few minor points of detail are open to criticism, this must not be permitted substantially to influence the general verdict of high excellence already entered on behalf of the new text-book. Editors, authors and publishers alike are to be congratulated on the extremely valuable contribution they have made to the didactic literature of English anatomy. J.T.W.

SURGICAL PRINCIPLES AND SURGICAL DISEASES OF THE FACE, MOUTH AND JAWS, FOR DENTAL STUDENTS. By H. H. Grant, A.M., M.D. Philadelphia and London: Saunders & Co. Melbourne: Jas. Little.

We do not like this work at all. We do not like the conception of it, the execution of it, or the tone of it. We fail to see what a dentist has to do with sarcoma of the thigh or with osteo-myelitis of the tibia; and we are certainly of opinion that amputation of the tongue for carcinoma and excision of the Gasserian ganglion for neuralgia do not come within the bounds of legitimate dentistry. Almost the only surgical operations not described in this book appear to be those for ruptured perineum and double pyo-salpinx, so that our gynæcological friends may rest content that at present Dr. Grant does not contemplate an attack upon their strongholds.

Extraordinary as are Dr. Grant's views, however, they are far excelled in interest by his literary style, which is the most remarkable and cumbersome that we ever remember to have seen. Some of his statements are open to serious question, as that, for instance, the mortality under chloroform is only 50 per cent. greater than that under ether. The first sentence in the book runs: "From our present knowledge we deduce that the basis of surgical pathology is, without question, germ infection," which is, no doubt, true, but at the same time shows that Dr. Grant has somewhat hazy notions of the difference between deduction and induction. The pictures of people before and after operation by Dr. Grant are interesting, and will possibly lead large numbers of patients to consult him for sunken noses, cleft palates, and such-like disorders; but whether they are in good taste in a book intended for non-medical readers is another matter. C.M.

Digitized by Google

THE AUSTRALASIAN
MEDICAL GAZETTE.

SYDNEY, 20TH MAY, 1903.

THE CORONER, THE MEDICAL MAN, AND THE PATHOLOGIST.

THE medical profession in South-west London have recently been much exercised over the action of the coroner, Mr. TROUTBECK, in calling in Dr. FREYBERGER as a specially qualified pathologist to perform autopsies for coroners' inquests in important cases. This action on the part of the coroner resulted from a suggestion by the London County Council that the services of a skilled pathologist should be secured for special cases; but this innovation has not been received with anything like favour by the profession in that part of London, and their opposition has been supported to a large extent by the London medical press.

It is somewhat remarkable that the procedure which for several years past has been recognised as most satisfactory, and which has hitherto worked so well in Sydney, should be objected to so strongly in conservative London. It has been argued that in accordance with the law the coroner is bound to call in the medical man in the neighbourhood where the death took place, or the medical man who has been in attendance on the deceased, to make the post-mortem examination, irrespective of his pathological knowledge or experience in making autopsies. It has also been argued that it is a slight to the local profession to call in some one from outside the district; and what is a still more remarkable argument, it has been stated that medical students are specially taught pathology in view of their being called upon in the future to make autopsies for coroners' inquests! But surely it cannot be considered a slight on the local profession to call in a special pathologist any more than it is to call in a specialist, a physician or surgeon, to consult in any special case of difficulty or doubt. And we must certainly demur to the statement that medical students are only taught pathology in view of autopsies for medico-legal cases. Pathology is of course taught for the purpose of enabling students to understand the processes of disease, so that they may be enabled to deal with them in a scientific and not in a merely empirical manner. As a matter of fact, autopsies for medico-legal purposes are made with special reference to certain signs and appearances associated with violent death, and it is but rarely that these are met with in the ordinary post-mortem work of the hospital; and it is certainly true that many medical students complete their course and enter upon practice without ever having made or seen a post-mortem examination specially conducted in view of a medico-legal inquiry.

In our opinion it is an anomaly if the coroner be bound by law to call in the nearest practitioner to make the autopsy, upon the result of which the life or liberty of a person may depend, quite irrespective of his special fitness for the task. We think that such a procedure in any other department of practice would be ridiculed as manifestly absurd; yet this argument is used with all seriousness against the reform in procedure suggested by the London County Council. In the *British Medical Journal* for March 28th last there is a striking case in point. A young man, 20 years of age, went home from his work thinking he was suffering from influenza. A doctor was called in, and as he got worse Dr. FAWCETT, of Guy's Hospital, was called in consultation. The patient died shortly afterwards, and a post-mortem examination was made by these two gentlemen, the conclusion being that the deceased had died from ptomaine poisoning. At the direction of the coroner, Dr. FREYBERGER made a second autopsy, and was of opinion that death had resulted from arsenical poisoning, and confirmed his belief by discovering arsenic in the heart, blood and liver.

Digitized by Google

We agree with Dr. HARVEY LITTLEJOHN, of Edinburgh, in his conclusions recorded in a paper read before the Medico-legal Society, that all autopsies for medico-legal purposes should be made by competent pathologists, but with all the assistance from, and in the presence of, the medical men who have been in attendance on the case, or who have been called to see the deceased person. We believe that in adopting this course of procedure the ends of justice will be most satisfactorily served for all parties.

THE REMUNERATION OF MEDICAL WITNESSES.

A CORRESPONDENT in our last issue drew attention to the miserably inadequate remuneration offered to him for attendance at the Central Criminal Court, Sydney, to give expert evidence in an important murder case. Although he attended on two separate occasions in accordance with instructions, and gave evidence, thus losing much valuable time, he was offered one guinea only and a first-class return fare by train. In response to an application to the Minister for Justice for some increase in this amount, he was informed that one guinea was all that was allowed under the *new* regulations. Formerly it was the custom to pay one guinea per diem for attendance, one guinea for evidence, and a small mileage rate of something like a shilling a mile. This was little enough when the medical witness was compelled to be absent from his practice for some days; but under the new regulations it would appear that this amount is to be considerably reduced.

We should like to know who is responsible for this reduction in the remuneration of medical witnesses, and what principle has been followed in fixing these rates. It is, of course, true that medical men, like all other respectable citizens, are interested in the maintenance of law and order and in the punishment of crime; and just as the juryman is called away from his business to serve on the jury, often at great personal inconvenience and pecuniary loss, so the medical man is called upon to make some sacrifice of time and money in fulfilling his duty as an expert witness in a criminal trial. But that sacrifice need not be very great as far as money is concerned, if the legal authorities who imperatively require expert medical evidence in a trial for a capital offence estimated the time and services of the medical man at something of their true value; and we must protest against the payment of a fee of one guinea for two days' attendance and evidence at an important criminal trial as being anything like a fair estimate of the value of services rendered.

But we are a long suffering profession, and many of the abuses under which we labour at present have arisen from a want of proper cohesion and organisation in past years. There has been no important powerful body to voice the grievances of the practitioners of medicine, and so the abuses have grown; but we do not believe in a policy of *laissez faire* in this matter of medical witnesses' fees, and we believe that if the matter be seriously taken in hand by the Branches of the British Medical Association, and representations be made in the proper quarters, some redress will be secured.

We shall be glad if any of our readers will furnish specific instances in which the fees offered to medical men for attendance as expert witnesses at criminal trials have been ridiculously inadequate.

THE MONTH.

The Treatment of Inebriety.

THE committee appointed by the Government of Victoria in December, 1901, to inquire into the subject of inebriety and the methods for its cure has furnished a report to the Chief Secretary. After detailing the work of investigation carried out by the committee, the report closed with the following recommendations:—

"1. That provision be made for the registration under conditions fixed by the Government

Digitized by Google

of all institutions for the treatment of inebriety. 2. That all such institutions must be placed under Government supervision and inspection. 3. That a special place of confinement and treatment must be provided for criminal inebriates, where the offence may be directly traced to inebriety or where the ground of detention is habitual drunkenness itself. 4. That a Government institution under a board of control be established in some locality suitable for isolation and classification and the opportunity for employment, to which inebriates can be sent voluntarily or compulsorily, in which different methods of treatment may be adopted. 5. That a bill be immediately introduced by the Government determining the conditions under which inebriates can be dealt with on the lines of the New South Wales measure of September, 1900, and making provision for the foregoing recommendations."

A Method of Increasing Hospital Revenue.

An innovation in the direction of increasing the revenue has been decided on by the Melbourne Women's Hospital committee at the suggestion of Mr. Pirani. In future, patients on leaving the institution will be handed a statement showing the actual cost their treatment has entailed on the hospital. In the course of discussion at the meeting of the committee it was pointed out that many patients recognised their obligation to the institution, and contributed according to their means, but there were others who did not do so. The object of providing the statement would be to show patients the extent of their obligation to the hospital in order that they might be induced to contribute to the best of their ability.

A Hostel for Nurses.

At the meeting of the board of directors of Prince Alfred Hospital, Sydney, held last month, a memorandum from the chairman (Professor Anderson Stuart), suggesting the establishment of a nursing institute in connection with the hospital, which should comprise a preliminary training school for nurses in conjunction with a hostel for nurses trained in the hospital, was discussed at some length. Under the present system of training, probationers are taken into the wards without any knowledge of their duties, and their services of little value for some time, whereas under a system of preliminary training they would at once be able to undertake responsible duties. With reference to nurses engaged in private nursing who had been trained in the hospital, under the present irresponsible system medical men and the public are frequently unable to obtain them, and the hospital has no further control over its nurses. By the establishment of a hostel for nurses trained in the hospital they would always be available, and the fact that they were residents there would be a guarantee of their capacity, as they would always be admitted to the practice of the hospital, and thus be enabled to keep abreast of improvements in nursing methods. The chairman stated that it was not proposed that the hospital should derive any profit from the hostel, which would be for the convenience of the public, and tend to the greater efficiency of the nursing service at the hospital, and would be simply self-supporting. The scheme was adopted, and the house committee was authorised to make the necessary arrangements for its inception.

The Queen Victoria Homes for Consumptives, N.S.W.

Subscriptions and donations are being asked for by the committee of the Queen Victoria Homes for Consumptives, in New South Wales, to continue the work at Thirlmere and Wentworth Falls. Facilities for the open-air treatment of consumptives have now been provided for suitable cases, and 64 patients are accommodated, which means an annual cost of about £3000. At the Wentworth Falls Sanatorium provision has been made for 20 male patients, who must be in the early stages of the disease, and in whom there is a reasonable hope of a cure. At Thirlmere provision is made for both male and female cases, and here, too, only those are admitted who are likely to be so far benefited by the treatment as to be able to resume light work. All applications for admission should be made to the secretary, Mrs. Hughes, 32 Jamieson-street, Sydney.

Cremation in South Australia.

The crematorium in Adelaide has now been completed, and the first cremation of a human body took place on May 4th. The ceremony was made doubly interesting by the fact that the body was that of a Sikh, who died in Adelaide on May 2nd. Only Sikhs and officials were allowed inside the building, where one of the natives recited an impressive funeral service

The Medical Curriculum in Melbourne.

At the meeting of the Royal Commission appointed to inquire into the finances and administration of the Melbourne University, on May 6th, the main question discussed was the medical curriculum of the University. Dr. John Williams, a member of the University

Digitized by Google

Council, said he considered the course should be assimilated with those of the best English universities. Sydney University had already made a move in that direction. Dr. Springthorpe, lecturer at the medical school at the University for 16 years, said the present curriculum was a compromise which satisfied no one in all its details. He disagreed with the system which allowed a man to become a resident medical officer in our hospitals solely on a written examination. Dr. T. Boyd held up the Adelaide University's medical curriculum as a model to the world. Dr. Fred. T. Bird thought a six years' course would eventually become necessary. Dr. R. A. Stirling remarked sarcastically that the medical course of the University had been an excellent one until people began to improve it. Dr. G. A. Syme held that if the scientific subjects were to be retained, a six years' course would be necessary instead of five.

Memorial to the late Dr. Pinnock.

At the Ballarat Hospital at the conclusion of the meeting of the district Branch of the British Medical Association, on April 30th, a bronze memorial tablet to the late Dr. Pinnock was unveiled.

Dr. Usher, the president of the local Branch of the B.M.A., remarked that he had been called upon to unveil a tablet to the memory of the late Dr. Pinnock. They all knew what Dr. Pinnock had done, and they were all aware that he was a man who never hit below the belt. On behalf of the subscribers he handed the tablet over to the president of the institution. Dr. Usher then unveiled the memorial, which consists of a neatly-designed tablet, executed in solid bronze relieved by moulded, cut, and scrolled label at base and scroll foundations at sides and head, and surmounted by a beautifully modelled coat-of-arms of the Pinnock family, with their patriotic motto, "*De bon vouloire servir le roi.*"

The inscription on the tablet is in raised letters, and is as follows:—

Erected by His Medical Friends
To the Memory of
Robert Denham Pinnock,
M.D., Ch.M. Glasg.,
Hon. Surgeon to this Hospital. 1879-1902.
Obit. 1902.

The lettering and all portions of the tablet in high relief are finished with a burnished face, and the background is in antique bronze.

Hospital Saturday.

The annual collection on behalf of the Hospital Saturday Fund was made in Sydney and suburbs on May 2nd. The committee announced that the total amount raised had reached £4325 1s 9d. This amount includes the industrial collections which are made during the whole year as well as the subscriptions, and is about £100 less than the total received last year. The officials are, however, well satisfied with the result, and attribute the slight falling off in the receipts to the prevailing depression and the street collection made this year on behalf of the Drought Relief Fund.

The A.N.A. and the New South Wales Friendly Societies' Association.

At the recent annual session of the Australian Natives' Association in Sydney, Mr. Dash moved: "That this year the Australian Natives' Association do not affiliate with the Friendly Societies' Association." He said that the latter association was not friendly to their association. The Friendly Societies' Association did very little good. Why, then, should the Australian Natives go amongst them? They had been asked to withdraw, and probably their subscription would not be accepted this year. Mr. Pontey said that the place where they were not wanted was the place where they ought to be. The opposition in the Friendly Societies' Association to the Australian Natives did not come from the members, but from the officers. If they did not join the association it would be said they had been expelled. To refuse to join would be a sign of weakness. The motion was lost by six to ten.

A Warning.

Medical men who are applicants for the position of medical officer to the Foresters' Lodge at Camden (N.S.W.) should obtain all particulars from either Drs. West and Faulds, at Camden, or from Mr. F. W. Loxton, 16 O'Connell-street, Sydney, or they may find themselves in an unpleasant position.

The Bubonic Plague.

Some rats infected with bubonic plague have been discovered in a store in Sussex-street, Sydney, within the last few days. It is highly satisfactory to know that this discovery has been made as the result of the unceasing activity of the expert staff of the Board of Health. Since the last outbreak the rats have been constantly examined, but no infected ones have been discovered until recently. It appears most probable that the disease among the rats has been re-imported.

Digitized by Google

BRITISH MEDICAL ASSOCIATION NEWS.

PROCEEDINGS OF AUSTRALASIAN BRANCHES.

New South Wales.

THE regular monthly meeting of the Branch was held at the Royal Society's room on Friday, April 24, 1903; Dr. Brady (president) in the chair. There were 46 members present.

The minutes of the previous meeting were read and confirmed.

The President announced the election of Dr. R. R. S. Mackinnon, of Warialda, and the nomination for membership of Drs. M. Sinclair, Wentworth Falls; H. C. Patrick, Taree; F. W. Webb, Croydon (Q.); G. Harwood, Adamstown; C. R. Hodgson, Dulwich Hill; W. H. Horton, Mudgee.

Dr. COSH exhibited a patient suffering from elephantiasis, with microscopic specimens of blood showing "Filaria nocturna."

Dr. SAWKINS was very glad that Dr. Cosh had brought his case of filariasis before the notice of the meeting. Those engaged in general practice in Sydney were rather apt to look upon the boundary between Queensland and New South Wales as forming also a barrier to the filaria parasite, but during the past 18 months he had had two cases of filariasis, both patients consulting him for persisting anæmia. The first was a young lady from Rockhampton district, who had been sent south by her doctor for a change. An examination of her blood discovered the filaria embryos. The second was a boy, 11 years of age, who had lived in Queensland, but who for the past 12 months had been in Sydney. His anæmia had been variously attributed to cardiac and renal troubles. Remembering the previous case, he examined the blood and found numbers of filaria embryos. He was sure that the systematic examination of the blood in cases of persisting anæmia coming from Queensland, and from at any rate the northern districts of New South Wales, would determine the presence of the parasite in more than a few cases.

Dr. LITCHFIELD showed a case presenting symptoms of cerebellar tumour. The patient was a female child, 3 years and 9 months old. The history was that the child was healthy and normal in all particulars up to nine months ago, when the mother noticed that she staggered a little in her gait. Since that time the staggering has become worse, until at present she is scarcely able to walk at all. The mother has also noticed that the head is getting larger. The father and mother are alive and well; one other child died at 1½ years from whooping cough, and there is another child in the family, age 3 months, who is quite well. The patient first came under notice four months ago, when the only symptoms were ataxia of the lower limbs. While under observation the difficulty in walking became greater; the head was noticed to be distinctly enlarged, 21 inches in circumference, and there was some irregularity of shape at the back of the head. She has had several attacks of vomiting, and has complained at times of vomiting. Dr. Gordon McLeod reports that there is no optic neuritis, but that both discs are hyperæmic. The ataxia is well marked, is confined to the lower limbs, and is of a reclining character; there is no tendency to fall to any one side, and there are no forced movements; the knee jerks are active on both sides. The symptoms point to a tumour interfering with the middle lobe of the cerebellum.

Dr. JAMIESON said there could be little doubt that the case exhibited was not one of Freidreich's disease. He noticed that there was a markedly asymmetrical condition of the head in the situation of the hinder part of the left occipital lobe, and that the percussion note in this situation was much duller than on the corresponding part of the head on the opposite side. It was more than likely that this case was one of cerebral tumour, and possibly of the nature of an hydatid cyst, which in such a situation would press upon the left half of the cerebellum and might thus produce the symptoms noted in the case. At any rate an exploratory trephining properly carried out would do no harm and might be productive of much benefit therapeutically.

Dr. BINNEY and Dr. CHAS. MACLAURIN also discussed the case.

Dr. LITCHFIELD, in reply, said that whatever the nature of the tumour, there was no doubt that the symptoms arose from interference with the cerebellum. The question of operation would be taken into consideration, but he did not think that the bulging of the skull referred to was directly due to a tumour growth.

Dr. KIRKLAND exhibited a case of cholesteatoma of the mastoid upon which he had performed the radical operation. It was found that a large portion of the bone had been absorbed by a pultaceous mass and the lateral sinus was laid bare for about half an inch. Under ordinary circumstances this cavity would have taken a long time to heal by granulation, and would have continued to discharge; it was therefore determined to fill in this large space with paraffin. The cavity was carefully cleansed by means of absolute alcohol 14 days after the original operation, and filled in as stated above, with the result that a complete cure was established within a fortnight. In addition to the wound behind the auricle healing in this short period of time, the ear itself was completely healed six weeks after the first operation. In filling a suppurating bony cavity with paraffin, one might have some fear lest some organisms should become imprisoned, and later on produce mischief deeper down. This is the first case which has been treated in this manner, and it can be justly claimed that two decided advantages accrue therefrom — firstly, shortening the duration of the cure, and, secondly, avoiding any deformity. Since treating this case he has filled in a part of the frontal sinus in the same manner. The case was an unusual one, in that after a complete removal of the anterior and lower walls a space existed under the nasal bones, apparently an abnormal expansion of the infundibuum. This recess hindered the cure by continually discharging, but after it was filled with paraffin it gave no further trouble. The members here present may remember that when showing a case of injection into the nose about 12 months ago Dr. Kirkland expressed the opinion that the paraffin acted as a foreign body in the tissues, and stimulated a new growth of tissue whereby the paraffin ultimately disappeared, and was replaced by fibrous tissue, and that this is the true pathology has been proved by some experiments made in America. Dr. Brady recently operated upon a case in which considerable deformity existed after an injection of paraffin done by a medical man in the country. He expected, on cutting down, to find the task of removing the paraffin an easy one, but to his surprise it was hard and tough like fibro-cartilage, and no paraffin visible. Some writers speak of paraffin wandering under the influence of high temperature, but as this is the true pathology in these cases migration is impossible. At the Medical Congress in Hobart he proposed that the inferior turbinate body in cases of

Digitized by Google

atrophic rhinitis should be injected with paraffin, with a view of diminishing the space for nasal breathing; this has subsequently been done by a German, and apparently with a successful result.

Dr. KIRKLAND showed a brain with a large abscess cavity in the temporo-sphenoidal lobe. The case was that of a young man, aged 26, who was admitted to the Sydney Hospital on November 5th and died on January 28th. He complained of severe pain over the temporal region, with tenderness on percussion over the mastoid. His temperature was 102°, and there was a foul-smelling discharge from the ear and a large polypus visible Some fear was expressed that a cerebral complication had arisen, though no definite diagnosis was made at the time. The polypus was removed and the ear treated antiseptically, after which there was an improvement in the general symptoms. About a fortnight later the mastoid was opened, when some pus was found in the antrum, and the operation was completed in the usual radical way. For five days after the operation the patient continued quite well; on the sixth day, however, he commenced to show symptoms of abscess on the brain, and Dr. Brady, in the absence of Dr. Kirkland, opened the original wound and trephined over the temporo-sphenoidal area. He found some pus between the bone and dura mater. Dr Kirkland on returning from his holiday explored the area of brain immediately under the trephine hole, and evacuated a large abscess. As the pulse, which was previously slow, did not improve after the pus escaped, there was a strong probability of another abscess being present in the brain; but its situation remained a mystery until the patient's death. The patient lingered for about two months, and at the autopsy it was found that two sinuses penetrated from and deeply beyond the abscess cavity. At the time of the operation it was found that the walls of the abscess remained quite rigid, which proved that it had existed for a considerable period. Dr. Jamieson, who examined the brain, thought that the abscess had been present for some months.

The President said that Dr. Kirkland was to be congratulated on the result of the cases in which he had used the paraffin injection. It was distinctly a new departure in the treatment of suppurating cavities in bone, and if its success were confirmed by further experience it would prove a valuable means of shortening the period of treatment in these cases which sometimes prove so tedious in healing. The remarks of Dr. Hinder regarding the analogy of the procedure to the stopping of a carious tooth were in accord with those which he had often expressed in discussing the matter with Dr. Kirkland. Sometimes when a tooth is stopped and a septic process is shut up, an abscess at the root forms, and a very painful condition follows. This can be relieved by the removal of the filling or the extraction of the tooth. In cases where we are dealing with cavities close to the brain the consequences might be more serious. However, the success in Dr. Kirkland's cases shows that the treatment may be safely carried out in some cases. The experience which he had in a case where he was called upon to remove deformity of the nose, which followed the injection of paraffin to raise a sunken bridge, showed that this substance does not remain an inert body in the tissues. He found on cutting down upon what was expected to be a mass of paraffin under the skin a dense fibro-cartilaginous body of new tissue, which was removed with a good deal of difficulty with sharp spadus and cutting forceps. The injection had been skilfully carried out by an able surgeon, and the result teaches us to be careful in the selection of this means of treatment, which may produce a deformity more serious than the one it is intended to remedy.

Dr. HINDER said he certainly was at a loss to understand how the cavity in the bone could be sterilised with a solution of alcohol; yet he had seen cavities in teeth which had been thoroughly cleaned from a dentistic point of view, and which showed on section four rows of micrococi organisms permeating the dentine for some distance from the supposed clean surface. This was what one would anticipate, for the dentist could only, in a general sort of way, get beyond the carious material, and yet he would dare to clean this with usually a mild sort of antiseptic, and then absolutely seal up the cavity, and often with complete success. There must be some germicidal agent at work in such cases whose action we do not fully understand.

Dr. HINDER read a paper on "Four Cases of Suppression of Urine." (See page 197.)

Mr. HANKINS said that Dr. Hinder's cases recalled to his mind one which occurred in his early student days, 40 years ago. On entering on an assistancy in the country his first job was accompanying his principal to a post-mortem examination on a patient who had died from suppression of urine. The diagnosis had been obstruction at the mouth of both ureters by calculi, and the post-mortem proved this to be correct. This was before the days of advanced kidney surgery. Henry Morris was at the time a student at Guy's. The result proved that diagnosis in those days was well to the fore, although operative treatment was far behind what it is at the present time. Now, no doubt, such a life would have been saved. Another case which occurred to him was one where total suppression had supervened, and lasted for 48 hours, after urethrotomy. Pilocarpine had been given, and after free sweating the patient had recovered. Supposing the result had been otherwise, would incision of the kidney have given the patient a chance? Of course the conditions were wholly different from the former case, the actual secretion of urine being in abeyance, probably from nervous influences.

Dr. JAMIESON remarked the first of Dr. Hinder's cases read called to his mind a case in the Sydney Hospital a few years ago. A man was admitted with complete anuria, together with symptoms of renal colic prior to its onset. Although he had complete and absolute anuria, yet he was in a remarkably comfortable condition and did not exhibit any signs of uræmia till a considerable number of days after the onset of the anuria. An operation was performed, and it was the intention of the surgeon, after viewing the kidney, to remove the organ. Unfortunately death occurred on the table from the anæsthetic, and at the subsequent post-mortem it was found that the patient had but the one kidney, and the ureter of it was completely blocked by a calculus. He would like to learn from Dr. Hinder at what period, if at any, signs of uræmia supervened in his cases. His reason for asking the question is that the case he had quoted certainly went a long way to prove that the ætiology of uræmia was in all probability intimately connected with the internal secretion of the kidney, and not to the discharge into the circulation of urinary by-products, as used to be held.

Dr. HINDER, in reply, said in each case the anæsthetic used was chloroform, for the reasons stated by Dr. Binney. None of these cases showed uræmic symptoms, and he believed that this was frequently the case in reflex anuria.

Council Meeting.

The Council met at the Association Rooms on Friday, 1st May, 1903. Present: Drs. Brady, Rennie, Crago, Hankins, Hinder, Pockley, Abbott, Dick, Newmarch, Fiaschi and Worrall.

Digitized by Google

Members elected: Drs. M. McIntyre Sinclair, H. C. Patrick, F. W. Webb, A. J. Harwood, Cortis R. Hodgson and W. H. Horton.

Read letters from Drs. Maffey, Angel Money, O'Hara, Vance and Booth.

Resolved—That the previous arrangement of allowing members of the profession resident in Broken Hill to be members of the S.A. Branch be continued.

Read letter from Secretary of the Parent Association, stating that in future subscriptions of Australian members should be collected by the Branches as before, the new regulations notwithstanding.

Resolved—That the hon. sec. Victorian Branch be informed that this Branch would co-operate in the way indicated to alter the by-laws relating to the subscription.

Read letter from Dr. West, of Camden, calling attention to the membership of certain wealthy men in the Foresters' Lodge in that district, and stating that he and his colleague had resigned their position as medical officers in consequence.

Resolved—That the Council would assist as far as possible in preventing new men being imported into their district.

Read letter from Dr. Bean, of Wallsend, calling attention to the fact that a Medical Institute was being started in Wallsend, paying medical officers by salary.

Resolved—That the establishment of such institutes was to be deprecated, and would be regarded as inimical to the interests of the medical profession.

Read letter from secretary of Phœnix Mutual Benefit Society, claiming that it should be recognised by the Branch.

Decision adjourned pending further inquiries.

The Editor submitted correspondence on the subject of local editors.

Victoria.

THE ordinary monthly meeting of the Victorian Branch of the British Medical Association was held at 178 Collins-street on Wednesday evening, April 29th. Present: Dr. Gresswell (President), in the chair, and 10 members.

The minutes of last meeting were confirmed.

Dr. GRESSWELL called upon Dr. Fox for any further comments upon his last paper, first thanking him for the trouble that he had taken to convey his electric apparatus to the meeting room.

Dr. Fox stated there were one or two points with regard to the "Application of High Frequency Currents" that he would like to specially bring under the notice of the members. He wished to remind them that the apparatus, although working very well at the last meeting, was not shown at its full power owing to the power of the current being limited to the 50 volts available from the accumulators. The following facts on cases of chronic tubercular disease had lately been published by Dr. Doumer, Professor in the Faculty of Medicine at Lille:—1. A patient suffering from a growth on the forearm of bacillary origin, and also suffering from the first stage of pulmonary tuberculosis, as evidenced by bacteriological examination of the sputa, as well as the other usual signs, was subjected to a course of this treatment for three or four weeks, applied at first to her forearm. The patient's general condition improved so much that the current was applied to the chest, and the patient's expectoration completely disappeared and her weight increased, and as far as all stethoscopic examination could discover the patient became perfectly well. 2. A youth, *æt.* 18, suffering from tubercular pulmonary disease for six or eight months and showing great emaciation, eventually got perfectly well under this treatment. This patient was called to serve in the army about 18 months after, and Dr. Doumer gave a certificate for the *conseil de révision* and a letter to the major in charge stating what the patient had been treated for. The army medical officers examined this patient carefully and could not find any trace of lung disease and passed him into the service, and at the time of the report he was actually with his regiment. According to most observers, about 80 per cent. of all kinds of tubercular disease terminate favourably or are very greatly benefited by this treatment. The speaker thought this result was almost too good to be true, but most observers had noted that on the disappearance of the bacilli, and after all symptoms had passed away, there were in some cases still slight stethoscopic signs of disease remaining. These might, of course, be merely the result of the general weakening of the pulmonary tissue, the result of the preceding disease, and, if so, would probably disappear.

Dr. WEIGALL wished to ask a few questions from a practitioner's point of view. If, at the start of this treatment, the temperature rising, the expectoration more profuse and the physical signs aggravated, is this deterioration actual? and if treatment were discontinued, would the patient rapidly become worse? or is it possible to kill a man if treatment started in the later stages of the disease, or even in a case starting with hæmoptysis? He would also like to ask the most suitable cases for this treatment.

Dr. BECKETT congratulated Dr. Fox on various points in his paper, but more particularly for the unvarying success with which he brought off his electrical experiments. He considered this a severe test of a man's skill in his work, and he could safely say that even in London these experiments could not have been shown to better purpose, nor be more up to date. His explanations were admirably clear, but he thought description of the production of the currents through the solenoid had been rather misleading. He thought that induction did not entirely explain its action, and that it was not correct to say that no current passed through the solenoid, for he found if you cut the solenoid in half you could demonstrate a current at the point where it was cut. He considered the results of this treatment so far as it had gone had been very hopeful. Such diseases as lupus, internal cancer, chronic eczema of legs and hæmorrhoids had all been mentioned as benefited by it. In the treatment of consumption he agreed with Dr. Fox that any other medicinal course might be adopted in conjunction with high frequency currents. Naturally in very advanced cases one could not expect anything to do much good. He was using this treatment on several cases, all of which were benefited by it, and he had found at first the cough became worse, expectoration more profuse, and the temperature rising to 100° F. at the most, but even in a fortnight the weight had increased, and very shortly general improvement set in.

Dr. HENRY said the influence of the mind in all forms of functional nerve disease is generally admitted. Many, however, declare that it has no part in purely organic disease. Now this may, after all, be a contradiction, because functional disease may be organic at the bottom. There can be no organic disease without some derangement of function. Sir James Paget, in his paper on "The Use of the Will for Health," says: "Not only the signs of some diseases, but their progress and issue, may in measure be determined by the patient's will. It can determine, in some degree, the methods of some of the processes of our life." Professor Clouston, in his inaugural address in 1896 to the Royal Medical Society (*B.M. Journal*, June 18th, 1896), said: "The brain cortex, and especially the mental cortex, has such a position in the economy that it has to be reckoned with, more or less, as a factor for good or evil in all diseases of

Digitized by Google

every organ, in all operations and all injuries"; and he winds up by stating that there is no further question of the dominance of the brain cortex in the organic hierarchy nor of its supreme importance in disease; and further, "the evidence that the brain cortex regulates absorption, secretion, vascular tone, and the anabolic and katobolic processes in the cells of the tissues may now be regarded as complete." And again: "Sores in many melancholic persons will not heal. The glands and the lung tissues in idiots and dements are unable to resist the attacks of the tubercle bacilli, so that two-thirds of our idiots and one-third of our worst dements die from tuberculous affection To explain all these mental and nervous effects on nutrition, on function, and on disease, we must not forget that it is gradually being demonstrated, that in our present state of histological knowledge, we have a sufficient apparatus in the brain cortex and its peripheral connections." John Hunter stated: "As the state of the mind is capable of producing a disease, another state of mind may effect a cure. The force of mind in therapeutics, so largely ignored by the profession; the exhilarating and nutritious stimulating effects on health; the powers of the conscious mind over the body, are well-nigh immeasurable, and our old division into functional and organic disease is merely the expression of our ignorance, and all diseases (even hysterical) involve organic disturbances somewhere. The forces of nature are not necessarily limited to so-called functional diseases." Mitchell Bruce says: "We are compelled to acknowledge a power of natural recovery inherent in the body. The body does possess a means of mechanism for modifying or neutralising influences which it cannot directly overcome. I believe that a natural power of prevention and repair of disorder and disease has as real an existence within us as have the ordinary functions of the organs themselves."

Dr. Laurie asked if it could be definitely stated how these high frequency currents acted upon the tubercle. One theory, he understood, was that the bacilli were stimulated to overgrowth, and so outgrew their pabulum and were destroyed. Another theory was that the rapid vibration of the current destroyed the bacillary organism. He thought it very reasonable to suppose that the rapid vibrations might first stimulate the bacillary growth and in the end kill the organisms. As for the influence of the mind towards hope by this treatment, it certainly should be encouraged.

Dr. Gresswell re-echoed the general opinion upon Dr. Fox's admirable address. He thought Dr. Weigall's question was very relevant, viz., what kind of cases should come under this treatment; and he would like to see careful experiments carried out on tuberculous animals, and post-mortem investigations made after a course of treatment, particularly, he would mention, on the bovine suffering from extensive peritoneal or pleural "grapes." He understood that the Wimshurst machine had lately been much used instead of the coil, the machine having been greatly improved for this purpose. With Dr. Henry's views of the effect of the mind as a curative agent in tubercular disease, which might be a reason for the improvement in many of these cases, he could not entirely agree. First, experiments in the laboratory had proved without doubt the effects of high electrical currents upon the bacilli; secondly, the results on the human subject and upon animals as shown in the report of cases; thirdly, the active processes at once taking place on the exhibition of the high frequency current could hardly be attributed wholly to the factors Dr. Henry suggested. A large number of diseases seemed to respond to high frequency currents —skin diseases of various kinds, epitheliomata, lupus, phthisis, and so on—and time would determine the durability of these cures. Dr. Gresswell concluded by saying that he thought Governments should take interest in such matters as this, and have experiments made by specially appointed experts to determine the value of treatment such as that under consideration. It should not be left to private individuals to have to spend their valuable time for the benefit of suffering humanity, often without any recognition or recompense.

Dr. Fox replied that this form of treatment at present was a new departure, and purely tentative, and necessarily had to be used in a more or less empirical way. This current has been applied to tubercular diseases in all its stages, and has been found to be of benefit in all. In the early cases it is, of course, most suitable. Replying to Dr. Weigall's question, there had been no records so far of untoward results. Theoretically, it seemed to him there might be grave danger of hæmoptysis during the primary exacerbation, but no cases had been so far reported. He had only used this treatment on two cases, and both had marked increase both of temperature, expectoration, and bacilli. He would have no hesitation in treating cases a month after the attack of hæmoptysis, as there had been no bad results recorded. There had been some confusion evidently about the activity inside the solenoid. He thought he had clearly shown the existence of this by lighting a lamp inside the solenoid, and stating that this was, on a small scale, what occurred in the patient's body on a large scale in the very large solenoid. What he wished to convey was that the influence of the current extended both outside, inside, beyond both ends, and everywhere in the neighbourhood of the solenoid. With regard to the actual manner in which the apparatus produced these strange oscillatory currents he thought he had made it clear that there were many causes at work, but that in order to render the explanation as lucid and simple as possible, he had limited it to the action of induction, and, beyond mentioning them, had not further referred to such complex causes as self-induction, impedance, etc. It was quite true that some small portion of the oscillatory current did really pass through the solenoid, but his experiments showed that this new current utterly refused to be governed by Ohm's law, which is the main governing principle of all other currents, since it was repeatedly shown to follow a path of high resistance in preference to one of extremely low, or, indeed, of no resistance at all. He had also noticed that these currents had been employed, as mentioned by Dr. Beckett, in a number of other diseases. He had mentioned their influence in diabetes, and in causing the pain in fissure in ano to disappear. The application of Wimshurst machines with accessories had been tried in many places, but it was found that the current of all static machines was painful, and there was considerable risk of getting a static spark. Such machines were, however, in use. The high electrical current had the effect of producing heat and perspiration when applied to the skin. He quite agreed with Dr. Henry that the mind was a great factor in the cure of disease, and everyone knew how generally hopeful a tubercular patient was, but he hardly thought mental impression would kill bacilli, nor could the increased weight be explained by mental impression, although, no doubt, it would greatly aid in the result. Bacteriological experiments confirm this great increase in vitality and quantity of bacilli: the destructive effect comes after. The theory holding the most weight at present was that the process was shut off by an inflammatory ring, leucocytosis set in, and resulted in the bacilli being eventually exterminated.

Dr. Weigall read notes on a case of "Aphasia as a Result of Heat Exhaustion."

Dr. Lance stated that he administered ether, and had

Digitized by Google

grave doubts whether he was justified, as the case seemed hopeless, the pulse recurring, the facial expression quite gone, and paralysis of one side. After trephining, the pulse improved at once, and when he saw the patient a few days after, intelligence had returned and the improvement was wonderful.

Dr. CUSCADEN said there was no doubt but for Dr. Weigall's diagnosis the girl would have died, and he thought the theory given was quite possible. He recalled a case off the West Coast of Africa when one of the quartermasters of the ship was suddenly attacked with hemiplegia whilst micturating, and became comatose and died in 24 hours, and he certainly thought this was due to heat stroke.

Dr. GRESSWELL expressed warm congratulations on the diagnosis and excellent results of this case. Walsham, of Bartholomew's Hospital, for years past had urged the safety of trephining and the frequency of cases in which it was of value. What heat stroke really is, and whether similar lesions on a minor scale do not occur, is well worth consideration.

Dr. WEIGALL replied that he had reported the case in the hope that discussion might open up any other causes. The literature on this subject is not extensive, and the pathological description is one of general engorgement. In heatstroke there is also engorgement of the deeper central structures, as well as temporary congestion of the lung. He remembered Dr. Youl remarked on a fatal case of heat exhaustion that the cause of death was pneumonia from engorgement of the lungs. In this case it was five days before localisation could be made out, and as the disease was distinctly progressive, the only chance was operative interference. He thought many cases of this kind might be saved if operative procedure were adopted.

Ballarat.

THE ordinary quarterly meeting was held at the Ballarat Hospital, at 8.30 p.m. on April 30th. Present: the President (Dr. J. F. Usher) and 16 members; visitors, Dr. G. Zichy-Woinarski and B. M. Sutherland.

Minutes of meeting held on October 30th, 1902, were confirmed.

Correspondence from the Auckland Section of New Zealand Branch *re* the formation of a Friendly Society's Dispensary in Auckland, enclosing copy of advertisement for medical officers for same. Moved by Drs. R. SCOTT and SALMON—"That the secretary's action in writing to say that this Branch approved of the steps taken by the Auckland Section, and that none of its members would apply for the positions advertised, be confirmed." Carried.

Drs. SALMON and MCGOWAN moved—"That the standing orders be suspended." Carried.

Drs. CHAMPION and WILSON moved—"That the names of L. F. Showman and M. C. Lidwell be allowed to go to the ballot, their nominations having been received too late to appear on the notice paper." Carried.

A ballot was then taken, and the following gentlemen were unanimously elected members of this Branch:—Horace Pern, M.R.C.S., L.R.C.P. (London), Smythesdale; L. F. Showman, L. *et* L. Mid. R.C.P., R.C.S. (Edin.), Sebastopol; M. C. Lidwell, M.B., B.S. (Melbourne), Ballarat Hospital.

Standing orders were resumed on the motion of Drs. Wilson and Morrison.

Dr. USHER then exhibited and explained his charts of the animal and vegetable kingdoms, and handed round a number of fresh specimens of pharmacopœial plants grown by himself, and a large collection of excellent paintings of the same by his daughter. He then produced his rough models of the animal and vegetable kingdoms, explained how they were arranged on evolutionary principles, and delivered a very interesting address on the subject.

A hearty vote of thanks was accorded to the President for his instructive and painstaking address, on the motion of Drs G. Affleck Scott and R. Scott.

Dr. HARDY read his paper on "Sarcoma of the Superior Maxilla" (see p. 206), and showed one of the patients referred to in his paper. He was heartily congratulated on the excellent results he had achieved, especially on the patient exhibited.

Owing to the secretary not having called a special meeting, it was pointed out that the meeting had no power to deal with notices of motion for altering the by-laws.

Drs. G. A. SCOTT and R. SCOTT moved—"That the secretary communicate with all members, and ascertain their opinions on (*a*) changing the night meeting from Thursday to Saturday, (*b*) holding meetings every two instead of every three months." Carried.

The Mileage Sub-committee submitted their scale of minimum fees for country trips.

Drs. MITCHELL and MORRISON moved—"That the report be received, and the scale of fees adopted." Carried.

The exhibits were held over until the next meeting.

South Australia.

THE monthly meeting was held at the University on Thursday evening, 30th April, 1903, when Dr. A. A. Hamilton presided over an attendance of about 24 members.

The meeting took the form of a clinical evening, and some interesting cases, specimens, etc., were shown by Drs. Lendon, Swift, Anstey Giles, Gunson, Jay, Prof. Watson, and others.

Dr. W. ANSTEY-GILES showed (1) man with very exaggerated varicose veins of both legs; (2), boy, *æt.* 13 years; a very satisfactory result three months after erasion for tuberculous disease of knee-joint.

Drs. MARTEN and NEWLAND showed an excellent skiagraph of a boy who had a month previously swallowed a halfpenny. It was seen lodged in the œsophagus at the level of the top of sternum by means of the screen. Under an anæsthetic, while recumbent on an X-ray couch, a coin catcher was passed, and the halfpenny easily removed.

Dr. LENDON showed the following:—(*a*) Microcephalus and webbed fingers: Boy, aged 8; left hand, web only reached to proximal joint; good result from Diday's operation; right hand, web complete and thick; available skin only just sufficient for one finger; other finger allowed to granulate; tendency to contract. (*b*) Contracted tendo Achillis: Boy, *æt.* 6; infantile paralysis five years ago; not able to put his heel to the ground; tendon notched; good result. (*c*) Fractured elbow, with injury to musculo-spiral nerve: Boy, *æt.* 10; wrist drop without sensory paralysis; not relieved so far by disengaging the nerve from the scar tissue in which it was embedded. (*d*) Ectopia vesicæ: Girl operated upon by the late Dr. Gardner; shows an umbilicus; artificial bladder useless; recently operated upon for left calculous pyo-nephrosis. (*e*) Obliterative appendicitis: Single woman, *æt.* 25; removed after second severe attack in two years. (*f*) Pelvis from case of ectopia vesicæ. (*g*) Appendix removed during oöphorectomy; early affection.

Prof. WATSON showed the following specimens:—

1. Lipoma, the size of a bantam's egg, growing from the sub-mucosa of the iliac colon, which was intussuscepted into the pelvic segment. The condition was associated with prolapse of the rectum and atrophy of

Digitized by Google

the uterus, which was no longer palpable. The sausage-like protrusion was cut away close to the anus, after the circulation had been controlled by a Thomas' tourniquet. The hæmorrhoidal vessels were tied in a bunch with catgut, and the cut ends of the bowel united with a single row of interrupted catgut sutures. The patient, a multipara, *æt.* 65, had a free evacuation of the bowels within a few minutes of being removed from the theatre, and made a smooth recovery; 16 inches of bowel were removed. Dr. W. A. Gilles.

2. Polyposis of rectum, which simulated cancer in a man *æt.* 40, who died of peritonitis, resulting from an inguinal colotomy at the "fixed point," which surgeons should try to avoid. The rectal mucosa is the seat of arborescent outgrowths like the comb of the cock.

Museum.

3. Syncytioma malignum, from a 3-para, *æt.* 37. Four months after the birth of last child the menses returned; metrorrhagia appeared and persisted, and at the end of the first year became offensive, and the patient began to run high temperatures. The uterus was removed by the abdominal route; the vagina was clamped with Doyen's angiotribe, and cut across; no enlarged glands were discovered. Temperature fell to normal within 24 hours of the operation.

Dr. J. A. G. Hamilton.

4. Placentoma, the size of an apple, following on hydatiform mole; from a multipara, who died of sepsis in 1877. Dr. J. C. Verco.

5. Sarcoma of corpus uteri, from a spinster, *æt.* 52, who died three months after its removal by abdominal hysterectomy, of a recurrence in the vaginal vault. This, with the preceding specimen, is shown for the sake of comparison with Dr. Hamilton's case of syncytioma.

Dr. J. A. G. Hamilton.

6. Telangiectatic myoma of uterus, removed by the abdominal route on August 4th, 1884, from a spinster, *æt.* 28, who married three years later, and has remained well ever since. Prof. E. C. Stirling.

7. Uterus, with excavated cancerous cervix, removed on September 11th, 1886, by vaginal hysterectomy, from a 9-para, *æt.* 37, who survived the operation 13 months. Professor Stirling's comments on the above two cases, in the light of our present knowledge, are intensely interesting. I think he may claim to have performed the first successful abdominal and vaginal hysterectomies in South Australia. (*Vide* transactions of the South Australia Branch of the British Medical Association, September, 1884, and October, 1886, respectively.)

Dr. J. A. G. Hamilton showed a uterus removed by pan-hysterectomy, from a woman *æt.* 37, which showed a deciduoma malignum.

Dr. Todd showed 28 gallstones, varying in size from a wallnut to a pea, removed from the gall-bladder of a woman, *æt.* 57. The patient complained of a painful swelling in her right lumbar region, but was at work four days before operation. The lump felt exactly like an enlarged kidney, and this organ was explored from behind by Edibold's incision. The kidney was felt to be normal, and an incision was made over the tumour in front, and the stones removed without difficulty.

Queensland.

A meeting of the Branch was held at the Technical College, Ipswich, on Friday, May 1st, 1903. The members who attended from Brisbane were entertained at dinner by the medical practitioners of Ipswich, Dr. Von Loesberg being in the chair. Thirteen members were present at the meeting, at which Dr. Hopkins presided, and Drs. Dunlop and Thornton, of Ipswich, and Dr. Macdonald, of Laidley, were present as visitors, who, with Dr. Kerwin, Irvinebank, were nominated members of the Branch.

Dr. Flynn exhibited a child suffering from a condition simulating leprosy, notes of which and of another similar case will be published in a future issue.

Dr. Cameron exhibited (1) a boy, aged nine, with a huge tumour of the shoulder, probably cystic or lipomatous, which had first made its appearance at the age of six months; (2) a man with unilateral sweating of the face, neck and chest; (3) a man with a large aneurism of the aorta, in whom pulsation of the arteries of the left extremities was imperceptible.

The President exhibited gallstones, some of which were unusually large, from three cases, and gave notes of the cases.

Dr. Macdonald, of Laidley, exhibited a brooch which had been swallowed by a child and passed seven days later.

Dr. Flynn exhibited a number of cases illustrating his paper on "Filariasis."

Correspondence was read from the general secretary of the Australian Natives' Association, and from the hon. secretary of the Queensland Friendly Societies' Association.

The President tendered the grateful thanks of the Brisbane members for the hospitality shown to them by their Ipswich brethren, and expressed a hope that the interest and success of the meeting would result in a cordial feeling being established between all the members of the Branch, and that meetings in other towns would be held with the same object and the same success.

West Australia.

The first meeting for 1903 was held on March 18th, at the Perth Public Hospital. There were present: Drs. H. T. Kelsall (president), O. G. Thorpe, G. H. S. Blackburne, H. E. Astles, A. E. Randell, W. Trethowan, F. Tratman, A. Saw, R. E. Newton, W. S. Laurie, H. Horrocks, L. S. Allen, and J. E. Ramsay.

Dr. Tratman exhibited:—

1. A prostate gland, weighing 4 oz., which he had removed from a man, aged 69, by Freyer's method. The man was shown to the members, and appeared well and in good spirits. He states that he can now hold his water like other men; previously he had to micturate every 10 minutes.

2. A gallstone, which he had removed from the common bile duct at a second operation, having failed to find it at the first. It was removed through a clean cut in the duct, no sutures being used. The man completely recovered, without fistula.

Dr. Newton showed:—

1. A case of hydatid cyst in the cerebellum. The patient was a man aged 42. One year before being seen he began to be troubled with giddiness, and five months later left frontal headache and vomiting. Headache used to come on suddenly and soon became very severe. Vomiting used to occur only in the morning when he assumed the upright position, and was never accompanied by nausea. About same time his gait became unsteady, with a tendency to fall to the left. There was diplopia and defective vision in the left as compared with the right eye. His symptoms had steadily progressed.

On examination there was marked nystagmus, pupils equal, react to light and accommodation. No strabismus; slight blurring of optic disc, but no obscuration of the vessels. Walk was extremely unsteady; left leg moved slowly and with marked want of precision. Great tendency to fall to left side when standing or walking with both eyes open or shut. Marked inco-ordination of left arm movements.

Hearing on left side very defective, especially to aërial conduction; bone conduction rather less than on right

Digitized by Google

side; membrana tympani thick and opaque; never pain in the ear or discharge; slight anæsthesia of left palm and palmar surface of left fingers; pulse, temperature and respiration normal; speech thick, slow and hesitating; memory very poor; intellect distinctly defective; no glycosuria.

On exploring left cerebellar fossa, dura mater bulged markedly; no visible pulsation, but felt on palpation; dura opened, cerebellar tissue fairly healthy looking; a searcher passed in about an inch; about dr. vi. hydatid fluid came away; wound closed and healed readily.

Vomiting and headache were relieved at once; nearly all the other symptoms subsided in a week or two; speech has gradually become natural, and walking has so improved since operation (six months ago) that he can go about the streets alone, and lately went to Sydney and back unattended. He is still steadily improving.

2. Excision of inferior dental nerve for neuralgia. A man, aged 43, been subject to paroxysmal attacks of pain for three years in the area of distribution of the right inferior dental nerve, lately accompanied by twitching of right cheek, angle of mouth and lower lip; frequency of attacks from a few minutes to two or three days. No anæsthesia, but when right lower lip or adjacent skin was touched he felt a hot burning sensation; pain was so bad as to make him feel inclined to suicide. A variety of medical treatment had had no effect.

Operation.— Incision from zygoma down posterior border of ramus to angle of jaw, and then forward 1½ in. Masseter split in length of fibres; ½ in. trephine near sigmoid notch and intervening bone removed; nerve traced up to foramen ovale, and here divided; the nerve was then twisted out from below, so as to remove as much as possible. At the present time (five and a half months after operation) he has had no return of pain, although nerve removed showed signs of chronic neuritis. Patient has signified his willingness to have a Hartley-Krause operation performed if the symptoms recur.

3. Appendicitis with sudden abscess formation occurring during convalescence from an attack. Male aged 20. There was a history of an attack 15 months and six months previously. Three weeks previously he had an attack; all symptoms gradually subsided under treatment, and he was considered convalescent, when his symptoms became rapidly aggravated, though he was still in bed: temperature 104° F., pulse 120 and weak; great pain in right iliac and umbilical regions, and in right thigh, which was drawn up. Dulness and slight fulness in right iliac fossa. Next day, when parents had consented to operation, he seemed almost in a dying condition; swelling had increased enormously.

Hypodermic of strych. gr. $\frac{1}{10}$ given, a little ether administered, and abscess incised 3 in. long, parallel to and 1¼ in. above outer part of Poupart's ligament. The abscess was a large one, and was situated outside and behind cæcum, and extended upwards behind ascending colon. Appendix was not searched for on account of patient's low condition. The cavity was washed out with biniodide, $\frac{1}{5000}$, and loosely packed with gauze. He made a good recovery, and remains well to the present date—nine months after operation.

4. Profuse hæmaturia in a case of slightly movable kidney. A middle-aged, thin woman; well till five years ago, then had attack of pain in right loin, and off and on ever since; lately she had been completely invalided by the pain. There was frequency of micturition with the pain, and of late hæmaturia. Sometimes pain would shoot down to vulva.

A very careful examination showed only a slightly enlarged, very tender and slightly movable right kidney. No crystals or casts ever found in urine; always acid reaction, often almost like pure blood; no tubercle bacilli found.

At operation kidney was enlarged and congested. Incised and carefully examined, no calculus found; catheter passed to bladder easily without obstruction. Kidney was fixed by sutures to lumbar aponeurosis. During the year since operation she has had no return of the symptoms, has quite regained her health, and is able to do all her household work and washing.

During the discussion Dr. Kelsall suggested the possibility of bacilluria. No bacteriological examination of urine was made. When she kept quiet there was no hæmaturia.

New Zealand.

At the annual conference of the New Zealand Branch of the British Medical Association, held in Nelson, the following resolutions were passed:—"That the Government be urged to place all institutions connected with the treatment of mental and bodily diseases under one department, and to make provision for advanced cases of tuberculosis by erecting annexes to our present hospitals. That attention be drawn to the need of better ventilation on steamers and railway carriages, and that regulations against overcrowding be strictly carried out. That Government should compel notification by the owner of all cases of diseases of the mammary gland in cows, the milk of which is used for human consumption. That this meeting strongly deprecates the attack which has been made upon the Chief Health Officer and his assistants in Auckland while attempting to carry out the duties devolving upon them under the Public Health Act." The attention of the conference having been directed to the publication in various newspapers of the colony of a paragraph setting forth that scarlet fever is not infectious during the stage of desquamation (peeling), it was unanimously resolved that in the interests of the public health the paragraph should be publicly contradicted, as the evidence is conclusive that scarlet fever is infectious during the whole course of the disease, including the peeling period. A recent statement by Dr. Koch that in his opinion bovine tuberculosis was not transmissible to a human being was held to have been amply disproved by all the most eminent authorities. Numerous instances were given by the medical practitioners present of cases in which the disease had developed apparently from drinking the milk of tubercular cows, the sufferers in some instances dying after a very short illness. The next annual meeting is to be held at Wellington. The election of officers resulted as follows:—President, Dr. W. E. Collins (Wellington); editor of journal, Dr. Mason (Wellington), secretary, Mr. H. M. Gore (Wellington).

Aspirin as an Analgesic in Carcinoma.—In the *Allgemeine Wien. Med. Zeitung* of March 17th, Dr. Breuss, of Vienna, recommends the use of aspirin for the relief of pain in inoperable carcinoma. Numerous observations have been made on the analgesic effect of aspirin in neuralgias and other painful affections, but only very few on its use in carcinoma. Dr. Witthauer gave doses of one gramme of aspirin once or twice daily in three cases of inoperable carcinoma with beneficial results. Dr. Merkel obtained good results in a case of severe rectal carcinoma by the administration of four grains in small doses, and other observers agree as to its usefulness in uterine carcinoma. Dr. Breuss has made a trial of it in several cases, chiefly of this last disease, and has been gratified by the result. He uses one-gramme powders, and administers two or three daily. He believes that it postpones the ultimate use of morphia injections.—*Lancet.*

Digitized by Google

REVIEW OF CURRENT MEDICAL LITERATURE.

MEDICINE.

Adhesive Mediastino-Pericarditis.

G. A. Gibson (*Practitioner*, February, 1903) states that in spite of the labours of numerous observers the diagnosis of adhesive pericarditis attended by mediastinal complications still remains somewhat uncertain, and the case he records is a contribution to this question. A pit-head labourer, aged 16 years, was admitted to the Royal Infirmary, Edinburgh, complaining of shortness of breath, with swelling of the feet and legs, abdomen, and face. His family and personal histories were good. His work had been very hard, consisting in pushing weighty trucks, but his hours of work were not long. Nine months previous to admission he was troubled with shortness of breath. Six months later he suffered from swelling of the feet and legs on returning from work, which partially subsided during the night; also from swelling of the abdomen, without subsidence in the intervals of rest; and œdema of the face about the eyes on waking in the morning. He also noted a feeling of fulness in the region of the stomach after meals, and that he was passing urine of an abnormally dark colour. On examination the face was seen to be markedly cyanotic, but there was no anxious expression, and the breathing was shallow and frequent. The abdomen was much enlarged, and there was much anasarca of the dependent parts of the body as well as of the tissue round the eyes. He had no pain, palpitation or faintness, but dyspnœa was constant. The veins of the neck were slightly distended, but showed no abnormal pulsation. The apex-beat was in the normal situation, but not pronounced, and there was no indrawing with the impulse. The right border of the heart was one and a half inches and the left four inches from midsternum. The sounds of the heart were quite normal, and no accentuation of any of them. The arteries were imperfectly filled, the blood pressure being below normal. The pulse was regular in time, but unequal in force. Sphymographic tracings reveal the characters of the "paradoxical pulse." The rate of breathing was 30 per minute, the rhythm regular and costo-abdominal in type. There were signs of fluid at both bases posteriorly. There was great enlargement of the spleen, which reached to a point three inches below the costal margin in the anterior axillary line. There was no enlargement of the thyroid or lymphatic glands. Examination of the blood showed hæmoglobin 80 per cent., erythrocytes 8,000,000 per cubic mm, and leucocytes 7500 per cubic mm. The abdomen was distended; the liver dulness measured nine inches in the vertical line. The urine was scanty, dark coloured, sp. gr. 1025, acid, and contained a small amount of albumen. In his remarks on this case the author states that it can only be explained on the basis of some interference with the return of blood to the heart from the great venous channels; and as no valvular lesion could be detected, while at the same time no apparent cause of myocardial weakness was present, it seemed most likely to be of pericardial origin, probably tubercular in its nature. The enlargement of the liver and spleen in this case are most characteristic of mediastinal and pericardial adhesions. The presence of the paradoxical pulse is also in favour of this diagnosis.

The Mimicry of Gastric Troubles by Spinal Disease.

Sir F. Treves (*Practitioner*, January, 1903) emphasises the importance of bearing in mind that disease of the spinal column or spinal cord may cause symptoms which are referred to the stomach, and often mask their origin. He refers to the well-known fact that children suffering from spinal caries frequently complain only of pain in the stomach, and are dosed with worm powders, or castor oil, or rhubarb, the true nature of the pain not being recognised. In adults this mimicry may be even more deceptive, and he records two cases from his recent experiences which are most instructive. The first was a lady, about 45 years of age, seen in a surgical home, whither she had been sent, as it was considered probable that an abdominal section would be necessary. She complained of severe and distressing pain in the stomach; there was also vomiting, which gave relief to the pain. The stomach was dilated; the epigastric region distinctly tender. She had had no hæmatemesis, but had wasted to some extent. She was quite an invalid, having tried in vain many dietaries and many physicians, and was now turning her eyes towards surgery as her only hope. The author examined her spine, and found the deformity of Pott's disease in the dorsal region; and the patient then explained that she had had caries of the spine when a child. Although no complaint was made of the back, a detailed examination rendered it probable that there was some recrudescence of the old bone trouble. At any rate the pain, sickness, and the dilatation of the stomach gradually vanished after no more elaborate treatment than a long confinement to bed in the recumbent posture. The second case was that of a man, aged 50 years, who had led an active life and had enjoyed excellent health. Some ten months before being seen by Treves he began to complain of indigestion, his main symptom being pain after food. This pain increased, became intense, and was always aggravated after food. Every method of treatment had been tried, and every type of diet, yet in spite of all he became steadily worse. He never once complained of his back. He continued his work in the shipbuilding yard, and always maintained that he was much better when at work. He was pale and emaciated, evidently very ill. His chief complaint was of pain over the pyloric region of the stomach, and described as boring in character. All kinds of food aggravated it, and he was living on fluid food—beeftea, milk, and eggs; but his chief anxiety was to keep his stomach empty, as he was only then free from pain. He never vomited except when he made himself sick; the stomach was dilated, and the upper part of the right rectus muscle was contracted, but no tumour or swelling could be discovered. As he was most anxious to have something done to relieve him, abdominal section was performed, but absolutely nothing could be found to account for his symptoms, all the organs being perfectly normal. Several days after the operation the nurse drew attention to a small lump she had discovered by accident between the patient's shoulders; the patient himself was quite unconscious of this. It proved to be a sarcoma growing from the mid-dorsal region of the spine. After a while paraplegia supervened, and the patient died about a month after the exploratory incision. The moral to be derived from these cases is that suspicion may be aroused as to the genuineness of a gastric trouble, when pain is the all-predominating symptom, when it is intense and persisting, and when vomiting is at the same time either absent or insignificant.

Herpetiform and Bullous Dermatitis.

Fitz (*Boston Medical and Surgical Journal*, March 26th, 1903) records the case of a meat-chopper who, six weeks after having been vaccinated, wounded his right thumb while cutting meat. A week later the wound became

Digitized by Google

swollen and painful. The patient had chilly sensations, and was obliged to go to bed on account of weakness. Groups of vesicles, accompanied by itching, then appeared on the backs of the hands and wrists, and three or four days later bullæ formed in large numbers upon the head, trunk and extremities. The blisters were as large as walnuts. He entered the hospital 19 days after the injury. There was a moderate elevation of the temperature, no leucocytosis, but 6 per cent. of eosinophiles. The bullæ healed readily, and there was little or no tendency to ulceration. The epidermis separated from the feet like portions of a mould, and the formation of epidermis on the blistered portions of the skin occasionally assumed a serpiginous character. This case is of interest from its etiology. There was evidently a traumatic infection of an exceptional nature, and the appearances correspond with those which have been observed in a limited number of patients after vaccination. The nature of the lesions and the presence of the hoof and mouth disease in localities not far distant have suggested the possibility of the infection from this source. It is known that butchers have thus been infected when slaughtering the diseased animals, although the hands and arms have been the seat of the eruption. There were no blisters in the mouth of this patient, but they have been absent in man where disease has been produced by wound infection. The disease had run a mild course, and the patient was convalescent. A bacteriological examination of the serum from the blisters had been made, but no further light on the case had been obtained.

Achylia Gastrica and Pernicious Anæmia.

Einhorn (*Medical Record*, February 28th, 1903), after some introductory remarks and records of some cases of achylia gastrica (atrophy of the stomach) and pernicious anæmia, discusses the question as to the relation, if any, between these two conditions. Austin Flint was the first to think of a connection between grave anæmias and atrophy of the gastric mucous membrane. In 1860 Flint said: "Of the importance of the stomach glands we can form an estimate when we consider that their business is to furnish from 25 to 30 lb. of gastric juice during the 24 hours. Nor is it difficult to see how fatal anæmia must follow an amount of degenerative disease, reducing the amount of gastric juice so far that the assimilation of food is rendered wholly inadequate to the wants of the body." Fenwick was the first to notice the fact that in patients who had died of pernicious anæmia a marked atrophy of the gastric mucous membrane was found. The result of the autopsy caused him to assume the atrophy of the gastric mucous membrane as the original cause of the pernicious anæmia. Fenwick's views were subsequently accepted by several clinicians, but more recent writers are not of the opinion that pernicious anæmia is caused by the atrophy of the stomach. Neusser examined the metabolism in a case of gastric atrophy with pernicious anæmia, and arrived at the result that there were at least some cases of pernicious anæmia with atrophy of the glands of the stomach in which the albumin metabolism took place in exactly the same manner as in healthy adults. The opinion of some authors that the severe anæmia in these cases is the result of malassimilation of food is therefore not correct. On the contrary, he found in his case that even in severe pernicious anæmia, complicated with stomach atrophy, the power of the body to utilise nitrogenous material of the food responds even to large demands made upon it. The author states that his own present observations also speak against the assumption that pernicious anæmia is caused by atrophy of the stomach for the following reasons:—(1) In most cases of achylia gastrica a nearly normal condition of the blood is found. In one case of achylia gastrica in which at autopsy a total atrophy of the stomach mucous membrane was found, pernicious anæmia did not exist during life. (2) We occasionally observe the presence of gastric juice in cases of pernicious anæmia, sometimes even in increased amount, as is evident from his case reported. If pernicious anæmia were caused by atrophy of the gastric mucous membrane, the achylia would have to be well marked as soon as the symptoms of the blood disease are apparent. We cannot deny that achylia and pernicious anæmia may occur together. These cases are, however, in the minority, and would probably point to the fact that there is a common cause for both affections, or that pernicious anæmia finds a ready soil in cases of achylia. We must also think of the possibility that in grave cases of anæmia in the last stages of the disease changes may occur in the stomach and intestinal glands (atrophy) just the same as analogous changes in the spinal cord have been observed in this disease.

Bence-Jones' Albumosuria.

Anders and Boston (*Lancet*, January 10th, 1903) state that since the original publication of Bence-Jones' discovery of albumosuria associated with "osteomalacia fragilis rubra" there have appeared in the literature records of 21 cases in which neoplasm of the bones regarded as probable myelomata was disclosed post-mortem. In eight of these the tumours were observed ante-mortem. The authors report three additional cases of this nature. Case 1.—A man, 32 years of age, was exceptionally well developed, and fond of athletics. He had had scarlet fever at 14 years of age, and malaria at 20 years of age. At the end of 1900 he had a fall from the second storey of a building. He complained of soreness in the lower dorsal and lumbar regions of the back. He then passed a large amount of pale urine, and had intense thirst, as well as general weakness and pronounced frontal headaches. Early in 1901, after lifting a piece of timber, he felt a giving-way of the backbone. Pain in the back became more intense, with marked tenderness over the lower dorsal vertebræ. He then lost weight, developed a decided pallor and a peculiar expression, the eyes having a staring prominence, with œdema beneath them; there was also some œdema of the hands and feet. He was a little later seized with severe pain over the liver, and a small nodule appeared on the eighth rib in the mid-axillary line. He also complained of pain in the right thigh and extreme tenderness on the inner side of the thigh. A little later this region displayed a tumour the size of a hen's egg, developing from the femur. He had other signs of anæmia, and the urine on examination showed the presence of albumose. No necropsy was obtained. Case 2.—A man, aged 43 years, met with a bicycle accident and fractured his right leg, and although recovery ensued he had since complained of pains at the seat of fracture. He subsequently suffered from rheumatoid pains in different parts of the body, but especially in the shins. Violent headaches also in the form of hemicrania developed; this symptom was remittent and occasionally intermittent, but it was exceedingly severe at some time of the day, usually in the early morning. No tumour masses were detected, although the skull, sternum and shins were tender to pressure. The heart was slightly hypertrophied, and the second sound was accentuated; the urine contained albumose; the blood showed an anæmic condition. He died about two months after coming under the observation of the authors. Case 3.—A man, aged 33, had been intemperate up to a few years before coming under the care of the author. There was a family history of rheumatism and Bright's disease. At the age of 18 years he had diphtheria, followed by facial paralysis. Complete

Digitized by Google

recovery did not ensue. His present illness was discovered six years ago, when he was an applicant for life insurance. He then had albumin with tube casts, but no other signs of disease until about three years ago, when he first noticed some malleolar œdema. He now presents symptoms of cardiac hypertrophy, the surface of the body being anæmic. The blood showed a certain degree of anæmia and leucocytosis, and the urine contained albumose as well as other morphological elements. His condition has not changed appreciably in the last six months. Bence-Jones' albumose is a body more or less closely allied to peptones, globin, histon, etc; it is a normal constituent of spermatic fluid, and may be found in the bone marrow in cases of myeloma. When present in the urine it is invaluable as a diagnostic feature in cases of obscure multiple myeloma, in which no other symptoms of this disease exist. It also serves in differentiating multiple myeloma from other bone lesions, as carcinoma, sarcoma, osteomalacia. If continuous it is of grave prognostic significance, and only a single exception is recorded wherein the disease has not proved fatal in less than two years. Where the albumose has persisted for some time its disappearance signifies approaching danger, and probably an early fatal issue.

PÆDIATRICS.

Pneumococcal Peritonitis.

Fowler (*Scottish Medical and Surgical Journal*, February, 1903) states that the fact that peritonitis may be caused by the pneumococcus is, perhaps, not so widely known as it deserves to be, and that it is far less rare in children than in adults. This disease was first described by Netter in 1890, and Michaut in 1901 collected reports of 26 cases and added 8 of his own. Stooss, of Bern, has recently given a very complete account of the disease, based upon four cases under his own care. This disease occurs either as (1) an encapsuled purulent effusion in the peritoneal cavity, or (2) as a diffuse suppurative peritonitis. The *encapsuled variety* is by far the more common. The typical commencement is acute with fever, abdominal pain and vomiting. Pain is invariable and diffused, or, if limited, usually in the lower part of the abdomen on the right side. Vomiting is also a constant symptom, and fever, but no rigors. Diarrhœa is said to be almost invariable, and Dieulafoy regards this symptom as a most important diagnostic feature between this and other forms of peritonitis. As the disease progresses, the abdominal tenderness persists, the distension increases, the diarrhœa continues, and the temperature, at first constantly high, shows remissions about the end of the second week, while the pulse rate corresponds with the temperature. After about a fortnight an encapsuled collection of fluid can be recognised in the abdominal cavity, generally in the middle line, but sometimes laterally placed. As this occurs, the veins coursing over the abdominal walls become distended, and if the abscess be not opened, hectic fever continues, and the abscess ultimately points and bursts at the umbilicus. *General purulent peritonitis.*—About one-third of the cases are of this nature. The symptoms of the onset are the same as in the encapsuled form; but instead of remitting they become more and more intense, and give the familiar picture of general peritonitis. Other organs become infected with the organism, so that in some cases there are developed pneumonia, pleurisy, pericarditis, tonsillitis, otitis, suppurative arthritis, and abscesses in distant parts. The diagnosis of the encapsuled variety can be made from the clinical features alone, without the assistance of a bacteriological examination, as soon as the effusion has developed; but in the early stage it is a matter of greater difficulty, as the symptoms resemble those of appendicitis, acute gastro-enteritis, and, after a few days, typhoid fever. 1. The diagnosis from appendicitis is difficult; pain, vomiting and fever are common to both conditions, but in appendicitis constipation is the rule, diarhœa the exception, while in pneumococcal peritonitis the reverse is the case. French writers lay stress on the presence of unilateral resistance of the abdominal parietes in appendicitis, a sign which is absent in peritonitis. 2. Typhoid fever: Towards the end of the first week the similarity of the symptoms to those of typhoid fever is most deceptive. The absence of the roseola and of the Widal reaction are the chief signs on which reliance can be placed. 3. Tubercular peritonitis.—The sudden onset and rapid course of the pneumococcal peritonitis are incompatible with a tubercular infection, although the emaciation, hectic temperature, pulmonary signs, and collection of fluid give a general resemblance to tubercular peritonitis. The prognosis is good in the encapsuled form and the treatment consists in the evacuation of the pus. Michaut collected 22 cases, of which 21 were operated on with only two deaths, in one of which there was co-existent empyema and pericarditis, and in the other of which spontaneous rupture had occurred already. After incision the cavity should be irrigated with ·75 per cent. sodium chloride and ·25 per cent. sodium carbonate, and drained with a short tube. In generalised peritonitis the prognosis is less favourable; one case of Stooss's was cured, while of Michaut's 11 two recovered. These cases should also be opened and irrigated as soon as their nature is recognised.

Aneurism of the Arch of the Aorta in a Small Boy.

Jordan (*Lancet*, February 21st, 1903) records the case of a boy, aged six and a half years, who had been the subject of otitis media since boyhood, and who began to suffer with headache, vomiting and fever. These symptoms grew worse, swelling of the left knee set in, and at first increased, but afterwards completely disappeared. When apparently convalescent, he died suddenly. The post-mortem examination showed the brain and meninges to be normal; the tympanic cavities contained muco-purulent fluid. The pericardium was distended with blood which had come from the rupture of an aneurism of the ascending arch of the aorta on its anterior aspect. The aorta in the vicinity of the aneurism was perfectly normal, and the valves and cavities of the heart, as well as the heart muscles, were quite healthy. There were no vegetations or other signs of the action of micro-organisms. The lungs and air passages were normal. There was not the slightest evidence of this being of traumatic origin, and Dr. Andrews, the pathologist and curator of the museum of St. Bartholomew's Hospital, regards it as an acute infective aneurism, and suggests that in the absence of any other evidence as to its causation it may have originated as a localised septic aortitis, possibly due to a minute pyæmic embolus in one of the vasa vasorum. An embolus of this nature might occur in any small artery; in the present case it happened to occur in a very unusual situation, and apparently in this one situation only.

PATHOLOGY.

The Reticular Network in Malignant Neoplasms.

Woolley (*Johns Hopkins Hospital Bulletin*, January, 1903) gives an account of a study of the finer supporting organisation of the different types of malignant tumours, by which term he means the carcinomata, the sarcomata, and the endotheliomata, including the peritheliomata,

Digitized by Google

using Mallory's method of staining. The object of the paper is to show how closely the tumours adhere to the type of tissue in which they originate, judged by the arrangement and distribution of their intercellular substance. He has convinced himself of the truth of White's conclusion that "carcinomata possess a stroma of white fibrous tissues outlining the cell spaces, but have no intercellular network," and "that sarcomata present a larger increase in the connective tissue, and possess an exceedingly fine intercellular reticular network, very similar in structure to the reticulum present in normal glandular tissue." But when we come to examine the structure of the endotheliomata, we have to deal with a group of tumours that arise from cells differentiated from the middle germinal layer and from the mesothelium. Consequently they are embryogenetically more closely related to the sarcomata than to the carcinomata (using the terms in their morphological sense). He finds no difference in the distribution of the reticular meshwork in the endotheliomata and the peritheliomata. When the cells of the tumour growths are arranged in groups, more or less as in the carcinoma simplex, the general rule has been that these cell masses are surrounded by a well-marked fibrous tissue and with very rare intercellular fibres; but, unlike carcinomata, there is a tendency to the formation of an intercellular reticulum, which is, in some cases, only shown by filaments from the enveloping fibrous tissue dipping down into the cell masses, and in many cases branching and surrounding a few of the peripheral cells. In sections of the same tumours in which this is seen there may also be groups of cells in which the process has gone farther, and between the majority of the cells in the group there is a definite intercellular meshwork. This is apparently regardless of the endo- or peri-vascular origin of the growth. The author concludes that the alveolar endotheliomata show, at the least, a partially-formed intercellular reticular network; at the most an almost complete one; and that the infiltrating forms show a complete meshwork which corresponds to that of the sarcomata; that all endotheliomata of whatever origin show a tendency to a sarcomatous structure as regards the relation between cells and reticulum. The application of this, in at least one way, is obvious. It represents most graphically the peculiarities of the derivation of the middle germ layer in its instability compared with the cells of the other layers, and brings out quite prominently the tendency of such relatively unstable tissue to revert to the simple embryonic type, to lose its acquired functions and retain its hereditary one of simple growth, and in that growth to preserve all the peculiarities of the great group of connective tissues to which it really belongs.

Blood Changes in Idiopathic Epilepsy.

Pugh (*Brain, Winter Part*, 1902) gives the results of his investigations on the condition of the blood as to alkalinity and leucocytosis in 40 cases of epilepsy observed at the London County Council's Asylum at Claybury. As controls he has examined the blood of members of the medical and official staffs and attendants at the asylum. He finds that the alkalinity of the blood in epilepsy undergoes marked variations. 1. The average alkalinity during the interparoxysmal period is lower than the average of the control cases. The interpretation of this phenomenon is a matter of some difficulty; (*a*) it may be due to the gradual accumulation of toxines of an acid nature in the blood. In this connection it is interesting to note that the lowest values of alkalinity were obtained from cases suffering from gastric catarrh and constipation, conditions in which there is hyperacidity both in the stomach and intestines due to the presence of the organic acids, lactic, acetic and butyric. These are absorbed, and pass into the circulation, and diminish the alkalinity of the blood; or (*b*) it may be the result of deficient metabolism. 2. There is a sudden and pronounced fall immediately prior to the onset of the fit. This may be regarded as the biochemical aura of the epileptic fit and a manifestation of some morbid change taking place in the organism. The source of the acid products may be either neuronic or muscular. It seems almost impossible for the neurones to produce such an amount of acid from so small a source, as would be necessary to reduce the alkalinity of the blood to any extent. It is more probable that there is a considerable alteration in the metabolism of the cerebral neurones, with consequent hyper-excitability and decreased inhibition some time prior to the actual epileptic discharge. This modified cortical activity brings about an increase of the muscular metabolism which occurs prior to the visible spasms, and accounts for the sudden and pronounced diminution during this period. 3. There is a further diminution after the fit is over. This is apparent some two or three minutes after the fit is over, and lasts some hours, the rapidity of return to the normal varying in different cases. It is directly due to the acid products of muscular metabolism, carbonic and sarcolactic acids, generated during the violent tonic and clonic spasms of the muscles during the epileptic paroxysm. It is interesting to note that this diminution is a negligible quantity in cases of petit mal. *The leucocytes.*—1. During the inter-paroxysmal period there is a wide variation in the number of the leucocytes. In the majority of the cases there was a gradual drop in the number right up to the onset of the fit. 2. After the fit there is a distinct leucocytosis, which attains its maximum from about 50 to 70 minutes after. The polymorphonuclear cells are diminished, the large hyaline and the small hyaline cells are increased. The eosinophiles are increased from two to ten hours after the attack. The leucocytosis in the status epilepticus is not constant. It takes a longer time to appear, and is not so pronounced as after one individual fit. In one case 45,000 leucocytes were counted after two fits, in another 30,000 were counted after 30 fits in quick succession. The leucocytosis passes off gradually. With regard to the causation, the consensus of experimental evidence seems to show that leucocytosis is to be looked upon as the reaction produced by a chemical substance circulating in the blood, and has its special mission to perform, viz., the removal or destruction of these substances. On this hypothesis the leucocytosis following the epileptic fit can be explained. The increase of the eosinophiles some hours after the attack is much in evidence, and is also very constant, and it is probable that these cells complete the destruction of the waste products by means of their secretory functions.

Cigarette Smoking.—In an American public school for several months 20 boys, who it was known did not use tobacco in any form, and 20 boys known to be "cigarette fiends" were closely observed by ten teachers. The following peculiarities were noticed in the smokers:—Twelve of them had poor memories, and ten of the twelve were reported as very poor; only four had fair memories, and not one of the 20 boys had a good memory. Twelve were in poor physical condition, six being subject to "sick spells," and were practically already physical wrecks. Eight were reported as being in a fair or good condition, but none was excellent. In Yale University comparisons were made for eight years between smokers and non-smokers. As compared with the smokers, the non-smokers gained 24 per cent. in weight, 37 per cent. in height, 42 per cent. in girth and 8·36 cubic inches in lung expansion.

Digitized by Google

CORRESPONDENCE.

London.

(FROM OUR OWN CORRESPONDENT.)

The Prevention of Mosquito Bites—The Egyptian Medical Congress—Hospitals for Paying Patients—A Floating Sanatorium — Egyptian Ophthalmia — Anti-Toxin Treatment of Enteric Fever—Bovine Tuberculosis.

In a recent issue of *Nature*, Mr. A. E. Shipley has given, under the title of "A Pot of Basil," an interesting account of a plant which is said to be shunned by the mosquito. It grows in Northern Nigeria, where the natives recognise the protective influence of the plant, and make use of it as a defence against insect bites. Mr. Shipley's specimens were gathered at Lokoja, a low-lying town where mosquitoes are a veritable plague. The plant is not abundant, but Captain Larymore, resident of the Kabba Province, has succeeded in cultivating it in pots, and has found that its presence in a room keeps out the mosquitoes. The plant has been identified at Kew as belonging to the Basil genus. The therapeutic nature of many members of this family has been for long well known. One variety, described as the Sierra Leone Fever Plant, has for more than half a century been in request in Africa for medicinal purposes. An infusion of the same plant is used in Liberia in all kinds of fever, and is preferred by the natives to quinine. It is also recognised in India as of curative value, and is resorted to in the treatment of remittent and intermittent fevers. It is not impossible that this plant may prove to be so obnoxious to mosquitoes that it may become of valuable assistance in the war against malaria, and even though it should turn out to be effective only indoors, it is at night that the mosquito mostly works his direful evil, so that the widespread use of this African basil might do much to render it a comparatively ineffective medium of plasmodium transmission. According to Captain Larymore, three or four plants, each about the size of a geranium, proved, if placed about the bed at night, to be as efficacious as a mosquito-net.

The first Egyptian Medical Congress was held at Cairo in the middle of December. No Egyptian institutions have profited so much by the enterprise and energy of English officials as those connected with medical education. The Government Medical School is carried on by a staff of teachers, almost all of whom are English. The examinations are held in English, and the whole medical curriculum is fashioned after the system in vogue in the medical schools of London. And yet it is an anomalous fact that whereas France, which has always been ambitious of absorbing the Cairo Medical School, sent 50 delegates to the Congress. England took no official recognition of it beyond asking Mr. Reginald Harrison, who happens to habitually take a winter holiday in a warm climate, to take the opportunity his casual presence in Egypt afforded of acting as the representative of the Royal College of Surgeons. The prestige which the teaching staff in Cairo has earned after much laborious effort was thus but scantily recognised by its home leaders, who, of all others, ought to have been the first to appreciate the immense value of the work which has been done. The inauguration of the Congress was undertaken by the Khedive on the morning of December 19th. His Highness generously welcomed the delegates, and expressed his personal sense of gratification at the recognition of medical progress in Egypt, of which the Congress was the visible expression. The President of the Congress, H. E. Ibrahim Pacha Hassan, then gave an account of the objects which the Congress hoped to achieve, and stated that the number of members who had joined was 520. Short addresses were subsequently given by the delegates from various countries. In the afternoon the Khedive held a reception at the Abdeen Palace, and in the evening the committee gave a fête at the Pyramids. The work of the Congress was divided into various sections, in all of which valuable papers were read, interest being specially centred round the lectures and discussions concerned with maladies peculiar to or most prevalent in the land of the Pharoahs. One of the most valuable features of the meeting was the opportunity it afforded to European practitioners to become personally acquainted with many of the Egyptian health resorts, which are nowadays so fashionable and widely popular. To native practitioners, of whom a large number were present, it afforded an unique opportunity for refreshing and revising their knowledge.

Twenty-two years ago there was opened in Fitzroy Square a small surgical hospital for patients who could afford to pay a moderate sum for the management of their disorders. The persons whose needs the institution was meant to supply were the great middle classes, most of whom cannot afford to pay the high rates of remuneration demanded in the majority of private nursing homes, and all of whom are ineligible for admission to public hospitals. This experimental departure from the existing order of things was inaugurated by Sir Henry Burdett, and the venture has succeeded so well that this year the original hospital has been rebuilt, and was re-opened to the public in January with an increased accommodation and with every improvement as regards equipment and sanitation which the most modern and up-to-date surgery can require. An account of the remodelled institution is given in the *British Medical Journal* of January 17th, and is embodied in a suggestive article on the subject of "Hospitals for Paying Patients." It is pointed out that the aims and intentions of Fitzroy House might well be extended to similar institutions for the treatment and cure of medical as well as surgical ailments, and that the whole question of the provision of facilities for the treatment of disease on the paying principle is ripe for consideration. Hospitals carried on according to the present system of our charitable institutions are advocated, and it is suggested that, by such a system, the cost even of such a home as Fitzroy House might be materially reduced, and the advantages of constantly supervised and carefully disciplined treatment at a very reasonable price be brought within the reach of those to whom such opportunities would prove a great boon. There can be no doubt that in a large number of instances disease, whatever its nature may be, can be better treated in a well-governed institution than in the patient's home, and it is equally certain that it would be a convenience to an appreciable proportion of the public to have it in their power to save their homes from the dislocation of domestic affairs and general upset of everyday routine which must ensue upon the occurrence of any serious or protracted illness. The time has certainly come when a departure of this kind seems desirable, and the attention of the British public only requires to be sufficiently aroused to the valuable possibilities of a scheme, such as the *British Medical Journal* advocates, in order to bring about the foundation of a hospital system on paying principles, having everything to commend it from the economic as well as from the utilitarian point of view.

The *Daily Chronicle* learns from its Berlin correspondent that steps are presently to be taken to test the

Digitized by Google

value of sea air as a means of relief or cure in phthisis. It has for long been advocated, but any good that may accrue from a protracted sea voyage is more than counterbalanced, on ordinary ships, by the lack of proper accommodation, the insufficiency of suitable food, the noise and smell of the engines, etc. Certain enthusiasts in Berlin, therefore, propose to build a large hospital-ship, which shall have roomy open-air wards and be completely equipped for scientifically testing, under efficient medical supervision, the effects of open-air life at sea on consumptive patients. It has been decided that the duration of each voyage shall be about six weeks, and the cruising ground shall be the north-eastern Atlantic, somewhere in the neighbourhood of the Canary Islands. The experiment is an interesting one, and the enterprise of those who are putting old and generally accepted views to the test of practical experience under conditions of scientific accuracy and of attention to every detail as regards the comfort of the patients is much to be commended.

Sir Ernest Cassel has promised the sum of £40,000 for the investigation of ophthalmia and of other diseases of the eye among the natives of Egypt. He has been induced to offer this munificent gift in order that native medical practitioners may be thoroughly trained in the diagnosis and treatment of those ophthalmic diseases which prevail so extensively throughout Egypt. Greater knowledge on the part of medical men will ensure more skilful and successful management of the cases they encounter; it will also arouse them to the all-importance of cleanliness as a preventive measure, and, through their example and precept, the poorer sections of the population will come to learn how to minimise the risk of catching the disease and how, if it is caught, to mitigate its more disastrous consequences.

In recent issues of *La Presse Medicale*, Professor Chantemesse has published an interesting series of results achieved by him from the use of an antitoxin in enteric fever. The serum is prepared by injecting a horse with typhoid poison obtained by cultivating the typhoid bacillus in an emulsion of spleen and bone marrow. If the patient's condition is favourable, a single injection of from 10 to 12 cubic centimetres often suffices to abort the attack. When, however, the pyrexia persists for eight or ten days after the first injection, a second dose of from 5 to 10 cubic centimetres should be administered. The effect of the injections in reduciug temperature is very marked, and so far as present observations have enabled Professor Chantemesse to arrive at an opinion, the case mortality would seem to be strikingly lessened. The serum is said to act principally by exalting phagocytic activity, but it is also both antitoxic and antimicrobic.

At a meeting of the Berlin Medical Society, held on February 4th, the question of the transference of bovine tuberculosis to man was again under discussion. Professor von Hausemann asserted, on the strength of prolonged and careful observation, that bovine tuberculosis may be conveyed to human beings, and may produce a tuberculous growth in the abdomen, which frequently disappears, but which may exceptionally spread to other parts of the body. He added, however, that: "In no case does the infection cause ordinary tuberculosis of the lungs resulting in phthisis. But since it is a fact that this bovine tuberculosis of the human intestines never causes death by itself, the previous assertion of Professor Koch has, to all practical intents and purposes, turned out to be quite right. It would, therefore, be harmless to feed children with uncooked milk, were it not that the milk commonly for sale contains a number of other dangerous ingredients which frequently lead to catarrh of the intestines."

Queensland.

(FROM OUR OWN CORRESPONDENT.)

The Brisbane Hospital—Meeting of the Branch at Ipswich—The Branch and the A.N.A.—Plague—The Health Commissioner.

THE financial position of the general hospital, as shown by the annual report, has produced a considerable amount of anxiety in the minds of all who have at heart the interests of the sick poor. Meetings have been held, and various proposals made with the view of securing wider and more efficient support to the hospital, the most promising of which appears to be that of a house-to-house canvass of the city and suburbs. Bazaars and balls and concerts have their uses, but when the expenses attendant on such entertainments are deducted from the proceeds, it too frequently happens that a very small sum remains. There is the danger also that the man who, by the expenditure of a shilling—in return for which he has obtained two or three hours of musical or social pleasure—has attended one of these functions, may feel that for one year at least his duty towards the hospital has been nobly performed. It is stated, indeed, that our Governor has intimated that he and his consort will not attend the charitable balls, etc., of this season, and they will doubtless use the money thus saved for charitable purposes. The State Government might well return to the former subsidy of £2 for each collected £1, by which means the taxpayer gives his assistance to charity almost without his knowledge. Some changes have been necessitated in the committee by the retirement of old members, of whom Mr. S. W. Brooks may be specially mentioned for particularly good and able work for the hospital, covering 15 years; the vacancies have been filled by the appointment of gentlemen whose experience of hospital management may be extensive, but to which reference has not been made. No step has been taken to secure representation of medical men upon the committee, whether members of the honorary staff or otherwise, a change which could hardly be expected to produce injury, and might be expected to result in some benefit to the institution. The honorary staff conditions still remain in the unsatisfactory state remarked upon in a former letter. An agitation is being created by some of the hospital supporters to secure representation by ladies upon the committee; but as the hospital is conducted with extraordinary economy, one fails to see how such a change could be of service, a word of praise in this particular being due to the secretary.

The meeting of the Branch held at Ipswich was a success in every way; the hospitality of the Ipswich practitioners, all of whom will shortly be members of the Branch, was much appreciated by the visitors from Brisbane; the only regret being, that in order to catch the train, the meeting had to be somewhat curtailed, so that it was not possible to discuss Dr. Flynn's interesting paper on "Filariasis."

The following paragraph appeared in the lay press in connection with the A.N.A. conference recently held in Brisbane:—"The action of the British Medical Association in its difference with the A.N.A. caused a long discussion. The result of the conference between the A.N.A. and the B.M.A. was reported to the conference, and satisfaction expressed that the difficulty was in a fair way of adjustment."

From some points of view "adjustment" is as unlikely as ever; nor should any change be considered by the Branch, one thinks, unless some definite and permanent arrangements are made with reference to a wage-limit. The A.N.A. only require such power as is

Digitized by Google

possessed by their brethren in Victoria to dictate their own terms to the profession—and one can imagine what such terms would be!

Plague has apparently come to stay. The Commissioner and his assistants are kept busy—at least the latter are—in their efforts to stay its progress. The pendulum has swung back, and the populace are as indifferent now as they were formerly panic-stricken. In order that the Bacteriological Institute may be enabled to devote its time almost exclusively to the requirements of the Commissioner of Health, the latter has caused to be withdrawn the privilege granted by the Home Secretary of free bacteriological examination of specimens obtained from patients suffering from the notifiable diseases and phthisis (excepting leprosy and cholera, which are practically non-existent, and plague, which is under the jurisdiction of the Health Department). This will certainly result in a slower and less complete diagnosis being made of such diseases as typhoid and diphtheria by those medical men who have lodge practices and a consequent increase in the spread of those diseases. It may be glorious to be a Commissioner of Health, but for a comparatively new arrival to fly in the face of the practically unanimously expressed opinion of his more experienced fellow-practitioners has the appearance of an arbitrary but futile attempt to bolster up a failing dignity.

EMERGENCY PRACTICE IN THE COUNTRY.

(To the Editor of the Australasian Medical Gazette.)

SIR,—In your February number Dr. Throsby makes mention of the "awkward and embarrassing circumstances country practitioners frequently find themselves in." The following is such a case:—When visiting (on horseback) a case of fractured tibia (previously put up), about 15 miles from home, and only carrying with me a stethoscope, a miniature pocket case, a hypodermic case and a small phial of pot. permang. crystals, I was called another 12 miles over the mountains. On arrival I found my patient, a multipara, suffering largely from the effects of uterine hæmorrhage. I diagnosed "abortion at three months." I packed the vagina with strips of torn sheeting, but failed to arrest the hæmorrhage. The patient lived in a "hut" (letting wind and rain in), 10 miles from any neighbour, and nothing in the shape of douche or Higginson was to be had. I gave full dose of ergotine hypodermically. I got the husband to find me a hammer, an old file, and a length of fencing wire, and made a curette and sharp hook. I then drew down uterus and curetted out just such a "mole" as Dr. Throsby describes. Then getting a piece of sheeting wrapped round my curette I swabbed out the cavity of the uterus with a solution of Condy's. There was no further hæmorrhage and no subsequent rise of temperature. I had no assistant, the only other occupants of the hut being the husband and some small children. As far as I know, neither text-books nor teachers go very fully into the details of procedure in such a case.—I am, etc.,

C. STANSER BOWKER,
M.R.C.S. (Eng.), L.R.C.P. (Lond.).

Dungog, N.S.W.

MEDICAL ATTENDANCE ON STATE CHILDREN.

(To the Editor of the Australasian Medical Gazette.)

SIR,—Regarding the enquiry of F.R.C.S.E. and the reply of the Boarding-out Officer thereto, in your last issue, I wish to say that I am one of the exceptions mentioned, and would suggest that as the acceptance by medical men of half fees for attendance on boarded-out State children has had such a "striking" effect on the balance-sheet of that one department, the Government should be urged to pay only half the current rates for all labour, material, wages or salaries necessary for the erection or maintenance of the numerous charitable institutions, directly or indirectly controlled by it, such as the new buildings at the Prince Alfred Hospital, the various lunatic and benevolent asylums, the Coast Hospital, etc., etc., not omitting the State children. I feel sure that if this suggestion were carried out there would be less heard of the necessity for retrenchment in the Public Service, and no one connected with the work of these institutions, not even the Boarding-out Officer, would object, as I presume they are quite as full of "philanthropy" as the medical profession.

Personally I see no "benevolence" in working for a Government institution for less remuneration than I receive from the outside public, and always have and always shall refuse to do so.

In conclusion, I think that there has been a slight mistake in the excerpt quoted by the Boarding-out Officer which should have read, instead of "the philanthropy," *the sweating* of the medical profession.—I remain, sir, yours, etc.,

FRANCIS H. FURNIVAL.

Auburn, N.S.W., April 27th, 1903.

INFECTIVITY OF PULMONARY TUBERCULOSIS.

(To the Editor of the Australasian Medical Gazette.)

SIR,—The infectivity of pulmonary tuberculosis is a subject which of late years has been prominently before the public and the profession. Like other medical men, I have often been able to trace such infection, but curiously enough the most pronounced case I have personally witnessed has come under my notice within a few months of landing in this State. The particulars are as follows:—

November 23, 1902.—Mrs. M. (Redfern) died of pulmonary tuberculosis, *æt.* 40.

February 26, 1903.—Son, S., *æt.* 19, admitted King's Tableland Sanatorium, suffering from pulmonary tuberculosis (softening of right upper lobe), symptoms dating from end November, 1902. Sputum loaded with small non-beaded bacilli.

March 31, 1903.—Mr. M. (father) died of acute pulmonary tuberculosis, *æt.* 49; symptoms of recent duration.

April 18, 1903.—Son, W., *æt.* 17, admitted King's Tableland Sanatorium, suffering from pulmonary tuberculosis: early infiltration.

Now, sir, a casual glance at this picture will convince anyone that here we have a most virulent infection, resulting in the death of both parents, and the, at least temporary, incapacity of the only two sons, all within the same dwelling, and within the space of a few short months. The practical decimation of a family is a sad enough view of the matter, but the question has further to be faced from the public health point of view. It will generally be admitted that the dwelling in which these people have lived and died must be regarded as a virulent focus of infection. The house is at the present moment vacant, and in regard to the admission of new tenants I could not help thinking of the spider and the unsuspecting fly. I accordingly wrote to the public health authorities on the subject, and am somewhat appalled to learn that the

Digitized by Google

important borough of Redfern does not even possess a disinfecting plant or staff, and, what is more, will do nothing in the way of establishing such. Dr. Armstrong, M.O.H., has most courteously answered two communications of mine on the above particular case, which, like myself, he regards as one of urgency, and he has adopted the following procedure:—He has moved the local authority to take action under the Public Health Act empowering them to declare the dwelling unfit for habitation until the landlord has carried out specified directions regarding the thorough disinfection of the house from top to bottom. Dr. Armstrong is to be commended for his action; but, sir, does it not seem antiquated at this time of day that in order to obtain disinfection of a house after a death from phthisis, the particular dwelling has first of all to be declared uninhabitable under the Act? Moreover, why should the landlord be saddled with the whole expense of a procedure actually taken in the interests of the whole community, and penalised for an occurrence for which (so far as we know) he is in no way to blame? I trust, sir, that the public of Redfern will take note of the present condition of affairs, and that before long they will force their municipal council to line up in the march of modern progress.—Yours, etc.

M. McINTYRE SINCLAIR, M.D.

King's Tableland Sanatorium,
21st April, 1903.

DERMOID CYST OF THE UPPER JAW.

(To the Editor of the Australasian Medical Gazette.)

SIR,—In the *A.M. Gazette* of December last I reported a case under the above heading. In last month's issue Mr. J. Bland Sutton, of London, writes:—"His (my) account of the case is so clear that it leaves no doubt in my mind that he removed a dental cyst connected with a stump or the root of a carious tooth." With all due respect for Mr. Sutton, I wish to state certain reasons why I have serious doubts in my mind as to the correctness of either of his conclusions. The first cannot be accepted because (*a*) the cyst was not connected with a stump; (*b*) there was no stump. With regard to the second I assure you (*a*) if I had removed the root of a carious tooth I should not have described it as a cyst: (*b*) there was no carious tooth.—Yours truly,

FRED. J. T. SAWKINS.

Sydney, April 13, 1903.

N.S.W. Lodge Practitioners' Defence Fund.

THE hon. treasurer acknowledges receipt of the following subscriptions and donations:—Subscriptions: £2 2s each from Drs. Foreman, Furnival, Gillies, Hankins, Stanley, Trindall; £1 1s each from Drs. Andrews, Atock, Barrington, Barton, Bennet, Binney, Boazman, Clubbe, Cooley, Corlette, Crago, Crawley, J. A. Dick, Doak, Frizell, Handcock, T. J. Henry, Hetherington, Hocken, Jamieson, Jenner, R. T. Jones, Kane, J. W. Kennedy, H. H. King, A. L. Kerr, T. S. Kirkland, Lipscombe, MacPherson, R. W. McCredie, McDouall, Manning, Miles, Jos. Marshall, Nolan, Ryan, Rennie, Grace Russell, Schalit, C. H. Scott, Spencer, W. G. C. Smith, Stacy, Stephens, Shaw, D. Thomas, E. H. Thane, Thring, Turkington, Vallack, R. B. Wade, T. F. Wade, Walley, Guy Warren, F. W. West, Windeyer, G. P. M. Woodward, Worrall; £1, Drs. Monti, Shortt; 10s 6d, Dr. Hein. Donations: Drs. Brady, £5 5s; Craig, £2 2s; Fiaschi, £1 1s; Foreman, £3 3s; A. L. Kerr, £1 1s; Luker, £1; Pope, £1 1s; W. G. C. Smith, £1 1s.

PUBLIC HEALTH.

New South Wales.

Health of the Metropolis.—From the report of the Medical Officer of Health for the month of April, 1903, we learn that the number of deaths for the metropolis during the month, after excluding deaths of non-residents in Sydney hospitals, was 467. The number is 39 less than the recorded number in March, and corresponds to an annual death rate of 11·1 per 1000 of the estimated population. The principal causes of death during the month were: Scarlet fever, 4; diphtheria, 14; typhoid fever, 7; diarrhœal disorders, 89; phthisis, 47; cancer, 32; prematurity, 13; developmental diseases, 32; old age, 21; apoplexy, 16; heart disease, 31; bronchitis, 13; pneumonia, 22; Bright's disease, 27; accidents, 10; suicide 8. Scarlet fever continued to be very prevalent; 353 attacks were notified during the month. Diphtheria also was very prevalent. On the other hand, the number of attacks of typhoid fever was below the quinquennial average for April, and show signs of the usual autumnal decrease.

Preservatives in Concentrated Milk.—A conference took place last month between the Treasurer, Mr. T. Waddell, and the members of the Board of Health, relative to the use of preservatives in concentrated milk. Recently the board drew up a regulation which provides that boric acid must not be used in the local manufacture of concentrated milk. Representations were made to the Treasurer by a firm engaged in the manufacture of the commodity that if it was not allowed to use a small quantity of boric acid the industry would be destroyed. The members of the Board of Health resolutely maintained that their regulation was absolutely necessary. The regulation must, therefore, be adhered to.

Typhoid Fever at Warren.—At a council meeting held on the 22nd April last, a report was received from Dr. Millard relative to his recent visit of inquiry as to the cause of the prevailing epidemic of typhoid fever. It contained several important recommendations, including the extension of the Dairies Supervision Act to the municipality. The council proposes acting upon the recommendations.

Tamworth Sanitary System.—Dr. Ashburton Thompson, president of the Board of Health, has condemned the sanitary system in force at Tamworth. When the sanitary system of Tamworth was being installed, Mr. Getting, chief sanitary inspector, visited Tamworth under instructions to make an exhaustive examination of the system. He did so, and the result of his report convinced the board that the system was not a satisfactory one. Though informed of this, the Tamworth Council persisted in carrying out the scheme. When finished, and it was desired to put it into operation, the council forwarded by-laws relating thereto for the approval of the board. The latter declined to do so, and the Attorney-General refused to sanction their adoption.

Boracic Acid in Butter.—Referring to the recent agitation by the Board of Health authorities with reference to the use of preservatives in food, the Agricultural Department and Mr. O'Callaghan have recommended the use of ·5 per cent. boracic acid as the maximum in butter here, and the recommendation has, we understand, since been adopted.

Control of Noxious Trades.—The Board of Health has experienced considerable difficulty in

Digitized by Google

inducing municipal councils to maintain a strict supervision of the noxious trades within their boundaries. This want of supervision is followed by laxity on the part of owners of noxious trades in carrying on their operations. The inevitable result is the creation of public nuisances. Under these circumstances the Board of Health has issued a circular calling the attention of local authorities to the law regulating the conduct of noxious trades, and informing them they will be expected to do their utmost to see that the trades in question are carried on in a proper manner. An intimation is also conveyed in the circular that if any neglect is shown in this regard the board will take the necessary legal proceedings against offending manufacturers, and will afterwards take action against the municipal authorities to recover the legal costs to which the board has been put.

Sydney Plague Restrictions.—The restrictions imposed by the Board of Health, with a view of preventing rats infected by bubonic plague from being introduced into New South Wales by means of cargoes brought from Eastern ports, formed the subject of an interview on May 6 between Dr. Ashburton Thompson, president of the board, the representatives of the three lines of steamers trading from Sydney to China and Japan, and a number of importers. The restrictions provide that vessels carrying rice from China and Japan must, if they touch at Hongkong, discharge their cargoes into lighters in Port Jackson. It was explained that any cargo taken aboard at Hongkong is lightered i to the steamers, hence there is no connection whatever between them and the shore, and shippers urged the board not to insist that the steamers must discharge their rice cargoes into lighters. Dr. Thompson said he would give the matter full consideration before bringing it before the board.

Victoria.

Spitting on the Footways.—For some months Melbourne has been placarded with notices enjoining pedestrians not to spit on the footpaths. No authority has, however, been given to the police to put a stop to the practice, consequently the injunction has been disregarded with impunity. At last a by-law has been passed by the City Council on the subject, and this came into force on April 21st last. Its provisions are:—"1. No person shall spit or expectorate on the footways of any street in the city of Melbourne. 2. No person shall put, throw, or allow to fall and remain in or upon any footway of any street within the said city the skin or peel or stem of any fruit, or the leaves or any part or parts of any vegetable." Breaches against these provisions will be punishable by a fine not exceeding £10.

Pulmonary Tuberculosis is said to be disappearing in Victoria. Twelve years ago, Dr. Gresswell points out, the death rate from this disease was 2·9 per 1000; now it is but 1·8 per 1000, and the decline has been steady, gradual and consistent. He states that if the houses of the poor were properly ventilated, in three or four years the number of cases would diminish very considerably.

Queensland.

Bubonic Plague.—The total number of cases to date in Brisbane was 17; total deaths, 8. Contacts have been kept under supervision and no case has arisen amongst them. The number of rats examined at the Bacteriological Institute during the week was 149; number of rats found to be infected, 5.

Tasmania.

Vital Statistics for Year 1902.—During the year 1902, 1601 births—820 males and 781 females—were registered in the registration districts of Hobart and Launceston. This shows an increase of 97 births as compared with last year, and an increase of 154 as compared with the average of the births registered in the last five-yearly period. To every 1000 of the population of the two districts the proportions of births registered were as follows:—For Hobart, 27·51; for Launceston, 30·17. The deaths registered in 1902 in Hobart and Launceston numbered 982—525 males and 457 females; 340 deaths, or 34·62 per cent. of the whole, took place in public institutions. The total number of deaths registered is 120 more than last year, and shows an increase of 11·8 as compared with the average number of deaths registered during the last five-yearly period. To every 1000 of the population of the respective divisions the proportions of deaths registered were as follows:—Hobart, 16·95; Launceston, 18·38. The deaths under 5 years of age numbered 217, or 22·10 per cent., of which 176 were under 1 year of age; the deaths between 5 and 65 years of age numbered 418, or 42·56 per cent.; and the deaths 65 years and upwards numbered 347, or 35·34 per cent.

OBITUARY.

Charles Ebden Crommelin, M.D. (Cincinnati), 1891, Tenterfield, N.S.W.

It is with much regret that we record the death of Dr. C. E. Crommelin, of Tenterfield, N.S.W., who died at Glen Innes on the 13th April. For some time past Dr. Crommelin had been distinctly out of health, and this condition culminated in an acute attack of angina pectoris several weeks ago. So severe was this initial seizure that at the time his life was despaired of. However, he rallied somewhat, and having laid up absolutely, and relieved himself of the cares of an arduous practice, his friends began to entertain hopes that his useful and honourable career might be prolonged. Unfortunately these hopes were not to be realised, as his condition did not definitely improve. During his illness he was attended by Dr. Rudolph Scheutte, Dr. Cope, of Glen Innes, and by Dr. Scot Skirving, who saw him in consultation. The deceased practised for many years at Casino, where he deservedly obtained the trust of a large circle of patients in no stinted measure. Desiring a cooler climate, he removed to Tenterfield, where he had been in practice for the last two and a half years before his death. Dr. Crommelin was a thoroughly sound, good, all-round practitioner, careful, observant, and trustworthy. Neither the passage of years nor an absolute professional environment were able in his case to dull his keenness after medical study; he remained a student to the end. The profession of medicine in New South Wales can ill spare such men. Dr. Crommelin leaves a widow and several sons and daughters, mostly grown up.

James Pryce Phillips, M.R.C.S. (Eng.), L.S.A. (Lond.), 1843, Adelaide, S.A.

The death is announced of Dr. James Phillips, one of the oldest medical practitioners in Australia. The deceased gentleman obtained his diplomas from the Royal College of Surgeons and the Society of Apothecaries in London so long ago as 1843, so that he had been a duly qualified medical practitioner for 60 years. He came to Adelaide in the early days, and for a number

Digitized by Google

of years was associated in the practice of his profession with the late Dr. Mayo, one of the most highly respected of the pioneers of medicine in that city. Dr. Phillips, who had not practised for ten years, resided on North-terrace, next to the Adelaide Club, where his death occurred on April 21st. He was a great friend of the late Dr. Morgan Thomas, and was a well-known figure in the city until he retired into private life. Dr. Phillips was greatly esteemed by all who knew him, and years ago he had a most extensive practice in Adelaide. At one period the deceased gentleman held a position at the Adelaide Hospital, and was also a medical visitor to the Lunatic Asylum. To the present generation of patients, however, he was comparatively unknown. He took a deep interest in everything affecting the honour and the advancement of his profession, and kept himself well abreast of the developments of modern science. Although an old man, Dr. Phillips retained his upright bearing and his characteristic look of alertness to the last, while his mental faculties were as keen as ever. His death will make one more melancholy gap in the ranks of the oldest colonists of the State. At the time of his death he was in his 82nd year. His wife and one daughter died some time ago, but the son, who is in England, and four daughters survive. The funeral took place on April 22nd at the North-road Cemetery.

Hon. Morgan Stanislaus Grace, M.D. (Jena), 1858, L.R.C.S. (Edin.), 1859, Wellington, N.Z.

The Hon. Dr. Grace died at Wellington, N.Z., on April 19th. Deceased had been a member of the Legislative Council in New Zealand since 1870. He served in the Maori war, and became principal medical officer of the New Zealand forces in 1865. In 1866 Dr. Grace settled at Wellington, where he gained an extensive practice. He was a member of the New Zealand board of the A.M.P. Society for about 30 years.

Medico-Ethical and Medico-Legal.

Charge of Malpractice.—Annie Sealey was placed on trial, before Mr. Justice Hood in the Melbourne Criminal Court last month, on a charge of performing an illegal operation on a girl aged 17. The jury, after being locked up for nearly two hours, asked for a direction on the question of corroboration as to the operation having taken place, and the person by whom it was performed. The evidence bearing on these points was read over to the jury. The Judge subsequently remarked: "When people are going to commit a crime they don't call in their neighbours. It is not always you get absolute evidence of some person who can say, 'I saw it done.' You have the fact that the thing took place in Mrs. Sealey's house. It is sworn that she got the money, and that nobody else was in the room but Mrs. Sealey when the operation was performed. You have heard Mrs. Sealey's refusal to tell the detectives one way or the other whether she had the girl in her house, and you have the fact that the servant girl was not called to give the slightest explanation of what took place. It is for you to say whether it is possible to draw any other conclusion than that Mrs. Sealey performed the operation; that she got money for it, and that the girl went there to be operated upon. If there is any other conclusion open to you, of course you are at liberty to draw it." The jury again retired, but when they had been locked up for six hours they were unable to agree. Mrs. Sealey was remanded on bail to the next Criminal Court.

HOSPITAL INTELLIGENCE.

Prince Alfred Hospital, Sydney.—The report presented at the 20th annual meeting of the Prince Alfred Hospital disclosed that 3182 patients had been admitted during the year, and at the close of the 12 months there were 227 remaining in the hospital. Throughout the year the accommodation had been taxed almost to its fullest extent. The number of beds was 236, and the average daily number of resident patients was 230, while at times the total had reached as high as 252. The surgical side of the work was increasing rapidly, the number of operations performed under anæsthetics being 2077, which is a record in the history of the institution. The changes in the *personnel* of the honorary medical staff during the past year have been very slight. Dr. S. H. Hughes, honorary assistant ophthalmic surgeon, resigned his position in June last, and the conjoint board elected Dr. H. Guy S. Warren, L.R.C.P. (Lond.), M.R.C.S. (Eng.), to the vacancy. Dr. N. W. Kater resigned his position as a clinical assistant in the medical out-patient department. The election of clinical assistants for the current year resulted in the reappointment of all the former holders of the offices, with the addition of Dr. E. W. Fairfax, who was elected to the vacancy caused by the retirement of Dr. Kater. The financial statement showed that for the year there had been an excess of £59 18s 5d in working expenses over the income of £20,541 11s. There had been a distinct improvement over last year so far as revenue was concerned. The subscriptions and donations had reached £3354 1s 4d, which was an increase of £550. This, together with the increase in Government subsidy, meant an addition of £1100 to the revenue. There had been a falling off of £250 in contributions from patients towards their own maintenance. This decrease, however, was due to the consistent policy adopted, where there was any question of choice between candidates for admission, of conferring the benefits of the institution upon the poorer patient. The introduction of the Federal tariff and the continuance of the drought had made a great difference in the cost of foodstuffs. The cost of meat, milk, butter, and eggs had increased to the extent of nearly £600 during the year. The endowment fund had been augmented by £1427 3s 3d, and from the Hospital Saturday Fund the sum of £795 had been received. It was claimed that the hospital, on account of its cosmopolitan character, was not merely a Sydney institution but a national one. Recently a census had been taken of the patients in the wards, and it was found that out of a total of 228 no less than 56, or 25 per cent., came from outside the metropolitan area. The amount received in country subscriptions was, however, only 3 per cent. of the total revenue from that source. Reference was made to the progress of the two new pavilions. They were both being built by day labour, and the workmen had got as far as the second storey. A sum of £6000, voted by Parliament in 1900 for additions and alterations to the existing buildings, had been expended in improving the entrance-hall, increasing the accommodation for the resident medical staff, and in other directions. The following gentlemen were re-elected to the board of directors:—Mr. J. Russell French, Senator A. J. Gould Dr. G. T. Hankins, Hon. James Inglis, and Mr. W. Trotter.

Women's Hospital, Melbourne.—According to a report recently submitted to the Women's Hospital committee, the demand for accommodation in the midwifery department had been so great that some of the patients had to be provided with beds on the floor. The necessity for increased accommodation is generally

Digitized by Google

recognised. The proposal to erect accommodation for the reception of septicæmia cases has not been taken up with the spirit that was expected. A suggestion has been made that nurses and midwives who practise their vocation outside the hospital should be provided with a copy of rules, similar to those issued by lying-in hospitals in London and elsewhere, in which specific directions are given as to the use of antiseptics and other methods of prevention in such cases. A copy of the rules has been forwarded to the medical staff for approval, in order that they might be printed and distributed amongst nurses. The Board of Health will also be asked to compel the registration of the nurses and the observance of the rules.

Melbourne Hospital.—Hitherto all casualties received at the Melbourne Hospital have been treated in a room in the main building off the central entrance, a most inconvenient place to reach by reason of the steep approach from Lonsdale-street. In future one casualty room will be used for both day and night cases, and vehicles will enter from Little Lonsdale-street. The room vacated will be fitted up for the honorary skiagraphist.

Hospital for Sick Children, Sydney.—At the last monthly meeting of the board of management a letter was read from the board of the Randwick Asylum stating that the trustees declined to enter into negotiations in reference to the Catherine Hayes buildings. A sub-committee was therefore appointed to consider the possibility of obtaining any other available site for the erection of a new hospital building.

Gundagai Hospital, N.S.W.—For the past 12 months the question of the site of the new hospital has been the subject of keen discussion. The president, Mr. James Robinson, has announced that he will make a donation of £250 to purchase the Church of England Glebe land of ten acres, and it was decided to purchase the site at once and erect a building, which will cost over £3000.

Launceston Hospital, Tasmania.—At a meeting of the Hospital Board the large increase in number of patients was viewed with alarm. There are 120 at present, as against 98 reported at last meeting, the total number treated for the month being 209, as against 148 for the corresponding period last year. The increase is mainly due to typhoid fever, of which there were 40 cases. It was the opinion of members that an officer of the Central Board of Health should be sent to the country districts where so many fever cases had occurred, and inquire into the cause of such outbreak.

The Devon Hospital, Tasmania.—Several times during the year patients had to be refused admittance owing to want of room, but with the accommodation provided in the new building this is less likely to occur. Some £400 are wanted to properly furnish the building.

Bathurst Hospital, N.S.W.—The sum of £1000 has been granted by the Government towards building a new operating theatre at the Bathurst Hospital.

Bellingen Hospital, N.S.W. — The new hospital to be opened next June will afford provision for six patients. Dr. Humphery has been appointed medical officer.

Children's Hospital, Melbourne.—On May 8th Sir George Sydenham Clarke opened the Princess May Pavilion at the Children's Hospital. The foundation of this building was laid by the State Governor on December 20th, 1901. Its completion provides accommodation for 40 additional patients. The Snowball and the Ormond wards each contain 18 beds. At the end of these two large wards are two small ones which will be devoted exclusively to infants. The need of such wards has been urgently felt for many years, many infants being annually sacrificed owing to the impossibility of giving them consistently skilled and careful nursing. Rooms have been fitted up for X-ray treatment of patients. Besides giving extra room, the new pavilion completes the scheme of the hospital by providing detached rooms in which it will be possible to isolate special cases. The cost of the building, furnished, will amount to about £11,000.

MILITARY INTELLIGENCE.

COMMONWEALTH OF AUSTRALIA.

MEDICAL STAFF, MILITIA.

Captain Alfred Hobart Sturdee, to the Reserve of Officers, Medical Staff, Militia.

Hugh Alexander Deravin, M.B., to be Lieutenant on probation, *vice* Captain A. H. Sturdee, transferred to Reserve.

NEW ZEALAND VOLUNTEER MEDICAL STAFF.

Surgeon-Major Sidney Sherman to be Brigade Surgeon Lieutenant-Colonel.

Charles Hazlitt Upham to be Surgeon-Captain.

NEW ZEALAND MILITIA.

Andrew Hugh Gilmer Hamilton to be Surgeon-Captain.

Our Advertising Columns.

MESSRS. MULFORD & Co., of Philadelphia, New York and Chicago, have sent us, through their Australian agents, Messrs. F. H. Faulding & Co., samples of several of their preparations, amongst them being pre-digested beef, liquor diastos—a combination of diastase, pepsin, trypsin, and ptyalin with nitro-hydrochloric acid and nux vomica—protan, bismuth, formic iodide (an antiseptic powder for wounds), somnos, etc., etc. All these preparations appear to be of a high standard. Messrs. Mulford & Co. claim that their laboratories for the preparation of vaccine lymph and serums are the most extensive and scientific in existence.

Messrs. F. H. Faulding & Co., Adelaide and Sydney, have forwarded to us a sample of their milk emulsion of cod liver oil with hypophosphites of lime and soda. It is a very palatable preparation, and is said to be a permanent emulsion. Messrs. Faulding & Co. are introducing an antiseptic soap under the name of "solyptol." It is said to possess powerful germicidal qualities, and has the great recommendation that it does not roughen the skin.

Messrs. Zoeller and Ross, Limited, announce that they have just started business in extensive premises in Angel-place, Sydney, with a large and varied stock of surgical instruments and aseptic hospital furniture. They are very anxious to receive a visit of inspection from medical men.

Marathon Private Hospital, an institution for the treatment of acute curable mental and nervous diseases, has lately been opened at Cheltenham, Victoria. The patients will be under constant medical supervision. We understand that this is the only institution of the kind in Victoria.

Digitized by Google

We have been requested to draw attention to the announcement respecting Pressa's varicose vein supports, which appears in our advertising columns. These supports are favourably spoken of by several medical men who have tried them.

Dr. Brandt's malted food is being re-introduced to the Australian public. This food, which is prepared in New Zealand, was introduced some years ago, and received a favourable notice in our columns.

MEDICAL NOTES.

Australian Natives' Association.—At a meeting recently held at the Queen's Hall, Sydney, for the purpose of forming a women's Branch of the Australian Natives' Association, addresses were delivered by prominent members of the A.N.A. It was pointed out that the women of Victoria had organised an association of the kind, and had met with great success. They had a membership of 1200, and the credit balance amounted to £260. The benefits to be derivod from the society include medical attendance, sick pay, funeral allowance, etc.

The Melbourne University Matriculation Examination.—At a meeting of the Melbourne University Royal Commission last month, Dr. Alexander Morrison stated that the standard of matriculation in the Melbourne University had steadily risen since its inception. It was about equal to, and in some things harder than, that of the London University, and considerably higher than the standards of the Scottish and Sydney Universities. The main fault of the Victorian system was the number of subjects required and the length of the papers.

Yersin Serum for Plague.—The Secretary of State for the Colonies has notified the Commonwealth Premier that the Jenner Institute will be prepared to supply Yersin's plague serum for use in the Commonwealth on and after August 1st next.

In the *Hawke's Bay Herald*, N.Z., the District Health Officer warns persons against taking children suffering from whooping cough to doctors' homes for consultation. This, he says, is a breach of the Act, and is punishable with a penalty not exceeding £10.

Plague in India.—According to a cable message received in the early part of this month 156 districts in India and 103 towns are affected by the plague, while the weekly mortality reached the enormous total of 30,000. Dr. Ashburton Thompson says that vessels arrive here almost wholly from Bombay and Calcutta, and not from other parts of India. Against those ports the usual rigid restrictions are imposed.

Measles in Fiji.—In view of the prevalence of measles in Fiji, the Government of that colony applied for the assistance of medical men who would be willing to proceed to Fiji for the purpose of combating the epidemic. Three medical men departed for Fiji some weeks ago, and have since been busily engaged in the work. Dr. Corney, who has been 30 years in Fiji, and is now principal medical officer there, states that the contagion did not assume a severer form than anywhere else, and that the high rate of mortality, especially during the great epidemic of 1875, was due to suffering natives plunging into cold water, thus producing bronchitis and pneumonia. Dr. Thompson says that whenever vessels arrived trom Fiji with patients aboard, every care is taken to see that the sufferers are properly isolated, so as to prevent the possibility of the contagion spreading.

Non-notification of Infectious Diseases.—At a recent meeting of the Sydney Municipal Council a memorandum was received from the City Health Officer stating that no notification had been received by his department of the illness of ————, who had been registered on February 2 as having died of typhoid fever at the Sydney Hospital on February 1 last. By neglecting to notify this case to the local authority the Sydney Hospital authorities had committed a breach of the Public Health Act. It was resolved that the Hospital authorities should be written to, informing them that unless the Act was complied with action would be taken.

Mr. J. Russell French, manager of the Bank of New South Wales, has been appointed a trustee of Prince Alfred Hospital, Sydney, in connection with Government securities, vice Professor Wilson, M.B., resigned.

PERSONAL ITEMS.

Dr. Bennett, of Crystal Brook, S.A., is taking a holiday trip to Europe.

Dr. A. J. Farr has resigned the appointment of medical officer to the Maldon Hospital, Victoria.

Dr. D. O. White has resigned his position of medical officer to Winchelsea Shire, Victoria, as he is leaving the district.

Dr. P. T. Thane, Mayor of Yass, N.S.W., was entertained at dinner on April 30th by his fellow aldermen, on his return from Brisbane.

Dr. Jarvie Hood, who has been on a visit to Europe, returned to Sydney on May 8th.

Surgeon-Major Robert H. Bakewell has resigned his commission in the New Zealand Militia.

Drs. G. P. Baldwin, W. E. Herbert, and F. W. R. J. King have been appointed Justices of the Peace for the Colony of New Zealand.

Dr. and Mrs. Lockhart Gibson, of Brisbane, left last month by the Canadian mail steamer for Vancouver on a holiday tour.

Dr. Stoney was entertained at dinner recently by a number of his friends prior to his departure from Nowra for Echuca (Vic.)

Dr. T. P. McInerney has been re-elected Warden of the University of Melbourne.

Dr. Frank Tidswell, micro-biologist, Department of Public Health, Sydney, and Dr. Ham, Commissioner for Health, Brisbane, have received intimation from London notifying them that they have been elected Fellows of the Sanitary Institute of Great Britain. Only one other gentleman in Australia has hitherto been honoured thus, viz., Dr. Taylor, of Brisbane, and the total number upon whom the honour has been conferred is only 161.

Digitized by Google

The first lady doctor in Australia to receive the M.D. degree, Dr. Constance Ellis, was entertained at a dinner on April 21st by a representative gathering of Melbourne lady doctors and University students in honour of her achievement. The toast of the successful practitioner was drunk with much enthusiasm.

The resignation of Dr. E. G. Blaxland, the hon. medical officer of the Infants' Home, Ashfield, was received with regret at the annual meeting of the home. A special vote of thanks for his services was passed.

Dr. Jude has arrived from Broken Hill to take charge of the hospital at White Cliffs (N.S.W.), and act as *locum tenens* for Dr. Ercole, who is suffering from a mild attack of typhoid.

Dr. Geo. H. Skinner has removed from Gormanston to Launceston, Tasmania.

Dr. and Mrs. David Grant have left Melbourne on a six months' holiday visit to Europe.

Dr. William Daish tendered his resignation as an honorary physician to outdoor patients of the Melbourne Hospital on April 21st. The committee thanked Dr. Daish for his services to the institution.

Dr. Olivey has removed from Millthorpe to Nowra, N.S.W.

Recently the committee of the Royal North Shore Hospital subscribed a sum of money for an oil painting of the late Dr. C. Dagnall Clark, who for many years was one of the honorary medical staff of the institution. The painting has now been sent out from London by Mrs. Clark, the widow of deceased, and it will be hung on the walls of the new Royal North Shore Hospital, which, it is expected, is to be opened shortly.

Dr. J. T. Hancock, from York (England), arrived in Sydney a few days ago, en route for British New Guinea. Dr. Hancock has been appointed chief medical officer of that possession, and also holds a commission from the London School of Tropical Medicine to report upon malaria and make certain experiments, with a view to discovering a remedy for this disease.

Prior to his departure from Narandera, Dr. Watt was presented by the people of the town and district with a purse of sovereigns, wherewith he was requested to purchase some suitable souvenir. Dr. Watt also received presentations from the Narandera Polo Club, and from the matron and nursing staff of the hospital.

Dr. Owen, of Westport, N.Z., had a most exciting time of it from the 18th of March till the morning of the 22nd, being all that time lost to his friends, and in serious danger of losing his life. It appears that the doctor had been to see a patient at some distant settlement, and had started back for Westport by a road leading along the beach and over some mountains. Not being familiar with the way, he soon found himself in a position from which he could not extricate himself, and it was not until Sunday morning that search parties discovered him almost exhausted at the foot of one of the hills. Dr. Owen had had no food during the whole of the time he was lost, but water he had found in abundance, and with this he had managed to keep up. His own presence of mind in leaving a marked handkerchief and other articles at various places as he wandered about contributed very largely to his being discovered.

Dr. R. Gordon Macdonald, who is retiring from the position of medical officer to the Dunedin Loyal Hand and Heart Lodge, was recently presented with a solid silver salver, surmounted with a thistle, in recognition and appreciation of valued services rendered for a period of 18 years.

Dr. Mason, chief health officer for New Zealand, is accompanying the Parliamentary party on their trip to the Cook Islands for the purpose of making observations on the diseases and ailments of the islanders.

The Hon. C. F. Marks has returned to Brisbane from a prolonged holiday in England, Ireland and Europe. He took advantage of the opportunity afforded by his visit to Dublin to pass the examination for the Fellowship of the Royal College of Surgeons of Ireland.

Dr. Peter Bancroft has returned to Brisbane after a year's absence in England and America, and was married on Tuesday, May 12th, to Miss Hulme, of Brisbane.

Dr. Harding has left Roma.

MEDICAL APPOINTMENTS.

VICTORIA.

Gordon, John, M.D. (Melb.), F.R.C.S. (Eng.), to be Surgeon to out-patients, Melbourne Hospital.
Gray, Colin, M.B., Ch.B. (Melb.), to be Medical Officer to the Maldon Hospital and Benevolent Asylum.
Wilkinson, J. F., M.D., Ch.B. (Melb.), to be Physician to out-patients, Melbourne Hospital.
The following gentlemen have been appointed on the Resident Medical Staff of the Melbourne Hospital:—Drs. E. V. R. Huckell, J. H. L. Cumpston, A. A. Weir, C. E. Dennis, S. W. Ferguson, H. T. Hamilton, H. S. Bush and L. Morris.

NEW SOUTH WALES.

Broinowski, G. H., M.B. (Syd.), to be Medical Officer, Narrandera Hospital.
Lavery, E. A., L.R.C P. (Edin.), L.R.C.S. (Edin.), L.F.P. & S. (Glasg.), to be Government Medical Officer and Vaccinator at Gosford, *vice* Dr. Sidney Fletcher, resigned.
Marks, Herbert William James, M.D., M.R.C.S. (Eng.), L.R.C.P. (Lond.), to be Member of the Dental Board of New South Wales, *vice* Dr. Samuel T. Knaggs, resigned.
McClelland, Walter C., B.Sc., M.B., Ch.M. (Syd.), to be Honorary Medical Officer, Marrickville Cottage Hospital, *vice* Dr. Chenhall.
Newman, E. L., M.B. (Syd.), to be House Surgeon, Royal North Sydney Hospital.
Sproule, W., M.B., M.S , to be Medical Officer, Burrowa Hospital.

WEST AUSTRALIA.

Butler, Frederick S., M.B. (Melb.), to be District Medical Officer at Beverley.
Corlis, Dr. M. A., to be Acting District Medical Officer at Menzies during the absence of Josiah Corlis at Lawlers.
Darbyshire, Dr., to be Officer of Health at Cottesloe, *vice* Dr. J. Jameson, resigned.
Harrison, W. A., M.B.C.M. (Edin.), to be Acting District Medical Officer at Esperance.
Langdon, Dr. J. A., to be District Medical Officer at Onslow and Quarantine Officer for the Port of Onslow.
Myles, Dr. W. S., to be District Medical Officer at Lawlers.

NEW ZEALAND.

Craig, William Bannerman, M.B.M.S. (Edin.), to be House Surgeon of the Sanatorium at Rotorua.
Carolan, James Frederick, M.R.C.S. (Eng.), to be Public Vaccinator, Auckland.
Eccles, Horace Dorset, M.R.C.S. (Eng.), to be Public Vaccinator, Whangaroa.

Digitized by Google

Hosking, Archer, M.B., M.S. (Edin.), to be Public Vaccinator, Masterton.
McCredie, Andrew, L.R.C.S. (Edin.), to be Public Vaccinator, Matakana.
Roberton, E., M.D., has been reappointed a Senate's Member of the Board of Governors of the Auckland Grammar School.
The following appointments have been made to the Honorary Visiting Medical Staff of the Auckland Hospital:—Honorary Surgeons, Drs. Gordon, Scott, Lewis and Williams; Honorary Physicians, Drs. Bull, Craig, Grant and King; Honorary Ophthalmic Surgeon, Dr. Pabst; Honorary Dental Surgeon, Dr. Cox; Honorary Anæsthetist, Dr. Neill.

TASMANIA.

Scott, Robert Gillespie, M.B., C.M., to be a Member of the Court of Medical Examiners, *vice* Barnard, Charles Edward, M.D., M.R.C.S., L.R.C.P., resigned.

To be ex-officio Members of the Board of Management of the Launceston Hospital, Tasmania, for the year 1903:—

Clemons, George Ernest, M.B., C.M., M.D.
Holmes, Louis Saenger, L.R.C.S., L.R.C.P., L.F.P.S.
Parker, Charles, M.B., C.M.

QUEENSLAND.

Flynn, John, Ipswich, L.R.C.P. & S. (Edin.), L.F.P.S. (Glasg.), to be a Health Officer for the purposes of "The Health Act of 1900."

PROCEEDINGS OF AUSTRALASIAN MEDICAL BOARDS.

QUEENSLAND.

Michod, Frederic Archibald Hope, M.R.C.S. (Eng.), 1897; L.R.C.P. (Lond.), 1897.
Symons, Vivian Hood, M.R.C.S. (Eng.), 1901; L.R.C.P. (Lond.), 1901.
(*Names re-published*).
Browne, Arthur Edward Newbury, 4th February, 1867, L.R.C.P. & S. (Edin.), 1882.
Ormerod, Edward Booth, 5th November, 1896, M.R.C.S. (Eng.), 1887; L.S.A. (Lond.), 1887.

WEST AUSTRALIA.

Fraser, John McCalman, M.B., B.S. (Aberd.), 1900.
Hollow, Joseph Thomas, M.B. (Melb.), 1899; B.S. (Melb.), 1901.
Kelly, James Patrick, L.R.C.P. (Edin.), 1889; L.R.C.S. (Edin.), 1889; L.F.P.S. (Glasg.), 1889; M.B., B.S. (Melb.), 1902.
Lister, Harold, M.B. (Melb.), 1896.
Teague, Harold Oscar, M.B., B.S. (Melb.), 1901.

NEW SOUTH WALES.

Macinerney, Charles Valentine, M.B., B.Ch. (Univ. Dub.), 1896.
Sproule, Robert, M.B., B.Ch. (Univ. Edin.), 1902.
Steel, William Hart, M.B., B.Ch. (Univ. Glasg.), 1898.
For Additional Registration.
Humphreys, Esca Morris, M.Ch. (Univ. Syd.), 1903.

BIRTHS AND MARRIAGES.

BIRTHS.

CARVOSSO.—On April 29th, the wife of Dr. A. B. Carvosso Brisbane—a son.
HAWTHORNE.—On May 1st, at Mudgee, N.S.W., the wife of E. Sydney Hawthorne, F.R.C.S., L.R.C.P.—a son.
HORNABROOK.—On May 5th, at Medindi, North Adelaide, the wife of Dr. R. W. Hornabrook—a son.
LAWES.—On April 26th, at Petersham, Sydney, the wife of C. H. E. Lawes, M.B., Ch.M.—a son.
MARR.—On April 24th, at Blayney, N.S.W., the wife of Dr. A. Smith Marr—a daughter.
McDOUALL.—On April 23rd, the wife of Dr. H. C. McDouall, Callan Park Hospital, Sydney—a daughter.
READ.—On May 6th, to Dr. and Mrs. Read, of Picton, N.S.W.—a son.
SLEEMAN.—On May 5th, at Trentham, Victoria, the wife J. H Sleeman, M.B., Ch.B.—a daughter.

At the annual meeting of the Sydney Metropolitan Medical Association, on May 7th, an umbrella with a monogram (H.T.Y.) was taken by mistake and another without a name was left, which may be had by applying to Dr. H. Taylor Young, 221 Macquarie-street.

MARRIAGES.

ARMSTRONG—EWAN.—On April 4th, at St. Stephen's Church, Phillip-street, Sydney, Dr. George Armstrong, College-street, Sydney, to Florence, second daughter of James Ewan, Penrith, N.S.W.
FORDYCE—WRIGLEY.—On April 15th, at Glen Innes, N.S.W., H. S. Fordyce, M.B., Ch.M., of Maclean, N.S.W., to Alice Elizabeth, daughter of Dr. F. H. Wrigley, Glen Innes.
KENNEDY—BURNS.—On April 26th, at St. Mary Magdalene's Church, Adelaide, James Charles Kennedy, M.B., B.S., to Helen Burns.
OLD—FRANKLIN-WRIGHT.—On February 11th, at St. Nicholas' Church, East Durham, George Greensill Old, M.B., Ch.M., son of the late Richard Old, of "Waberton," North Sydney, to Ethel Lorina, daughter of J. Franklin-Wright, of East Durham, Norfolk, England.
WADE—RHODES.—On March 22nd, at St. Phillip's Church, Sydney, T. F. Wade, L.R.C.P., of Wollongong, N.S.W., to Bertha Constance Rhodes.

BOOKS RECEIVED.

The Practical Details of Cataract Extraction. By H. Herbert, F.R.C.S. Paris, London, Madrid: Baillière, Tindall & Cox. Sydney: L. Bruck. Price, 4s. 1903.
Practical Handbook of the Pathology of the Skin. An introduction to the histology, pathology, and bacteriology of the skin, with special references to technique. By T. M. H. Macleod, M.D., M.R.C.P. With eight coloured and 32 black and white plates. London: H. K. Lewis, 136 Gower-street. 1903. Price, 15s net.
The Medical Annual. A yearbook of treatment and practitioners' index. 1903. Bristol: J. Wright & Co. London: Simpkin Marshall, Hamilton, Kent & Co., Ltd. Price, 7s 6d net.
First Aid to the Injured and Sick. An advanced ambulance handbook. By F. T. Warwick, M.B. (Cantab.), M.R.C.S., and A. C. Tunstall, M.D., F.R.C.S. (Ed.). Bristol: J. Wright & Co. London: Simpkin, Marshall, Hamilton, Kent & Co., Ltd. Price, 2s 6d.
Diseases of the Bronchi, Lungs and Pleura. By Professor Dr. F. A. Hoffmann, Professor Dr. O. Rosenbach, Dr. E. Aufrecht. Edited, with additions, by John H. Musser, M.D. Authorised translation from the German under the editorial supervision of Alfred Stengel, M.D. Philadelphia and London: W. B. Saunders & Co. Melbourne: Jas. Little. 1902. Price, 25s.
Diseases of the Pancreas and their Surgical Treatment. By A. W. Mayo Robson, F.R.C.S., and B. G. A. Moynihan, M.S. (Lond.), F.R.C.S. Philadelphia and London: W. B. Saunders. Melbourne: Jas. Little. 1903. Price, 15s.
The Elements of Bacteriological Technique: A Laboratory Guide for the Medical, Dental and Technical Student. By J. W. E. Eyre, M.D., M.S., F.R.S. (Edin.). Philadelphia and London: W. B. Saunders & Co. Melbourne: Jas. Little. 1902. Price, 1 s 6d.
Catechism Series.—Physiology, part 1 and 2; Pathology, part 1. Edinburgh: E. & S. Livingstone. Price, 1s each.
Catechism Series.—Histology. Edinburgh: E. & S. Livingstone. Price, 1s.

LETTERS AND OTHER COMMUNICATIONS HAVE BEEN RECEIVED FROM:—

Drs. W. R. Fox, Fitzroy, Melbourne; A. B. Brockway, Brisbane; McIntyre Sinclair, Wentworth Falls; B. B. Ham, Brisbane; E. S. Hawthorne, Mudgee; Richard Jones, Bendigo; J. B. Gunson, Adelaide; E. E. Moule, Mannum, S.A.; W. F. Litchfield, Glebe; Richard Arthur, Sydney.

HUDSON'S "EUMENTHOL" JUJUBES (Registered) are a Gum Jujube containing the active constituents of well-known Antiseptics, Eucalyptol, Thymus Vulg., Pinus Sylvestris, Mentha Arv., with Benzo-Borate of Sodium, etc., and exhibit the antiseptic properties in a fragrant and efficient form. Sold by all chemists; tins, 1s 6d. Are Antiseptic, Prophylactic, reduce Sensibility of Mucous Membrane. Mr. W. A. Dixon, F.I.C., F.C.S., Public Analyst of Sydney, after making exhaustive tests, says:—"There is no doubt but that 'Eumenthol' Jujubes have a wonderful effect in the destruction of bacteria and preventing their growth. . . . I have made a comparative test of 'Eumenthol' Essence and Creosote, and find that there is little difference in their bactericidal action."

Digitized by Google

AUSTRALASIAN MEDICAL GAZETTE.

ELECTRIC CURRENTS OF HIGH FREQUENCY AND HIGH TENSION, AND THEIR ACTION IN CHRONIC PULMONARY TUBERCULOSIS.

By William R. Fox, L.R.C.S., L.R.C.P., etc., Member of the British Electro-Therapeutic Society, Melbourne.

It is now over ten years since Professor D'Arsonval published his experiments in oscillatory currents of high frequency, together with his researches bearing on their physiological action. These proved to be of such merit that he was awarded the La Caze prize by the Academy of Sciences of Paris. Recently the use of these currents in the treatment of chronic pulmonary tuberculosis has given results which certainly seem to deserve careful attention, and which have created an additional interest in this peculiar phenomenon of electric oscillations. These currents have for a long time past been used therapeutically by a large number of practitioners in various parts of the Continent, but it is only recently that their methods and results have begun to attract attention in Great Britain.

In order that you may thoroughly understand the manner in which this apparatus produces these strange oscillatory currents, it is necessary to demonstrate to you D'Arsonval's original experiments, and to show you the electrical action of each part of the apparatus; but before doing so it will be well to give some explanation of what oscillation of an electric current really means, as well as of one or two electrical terms of a technical nature.

The first of these to which I would direct your attention is the term "tension" or "potential." It is also known as electromotive force, and is expressed in volts. It may help you to understand the meaning of this term as applied to electric currents by comparing it to the so many pounds to the square inch as applied to the pressure of the steam in the boiler of a steam engine, although such a comparison is not strictly scientifically accurate. You all know that a cubic foot of steam at 200 lb. to the square inch possesses ten times the potential energy of a cubic foot of steam at 20 lb. to the square inch. So with the electric current, a tension or potential of 200 volts possesses ten times the potential energy of 20 volts, and so on. Now it is easily understood that if the pressure of the steam be increased sufficiently, a point must sooner or later be reached at which the strongest boiler will fail to withstand the strain, and will give way, or, in other words, will burst. So with the electric current, if we raise the tension sufficiently, we must at some time reach a point where the insulating material, which, in many instances, is the air, must break down and allow the electricity to discharge, or, in other words, to escape just as the steam would from the boiler when it burst. This is really what occurs when an induction coil is working. An induction coil is merely a huge "step-up" transformer, transforming the low potential current traversing the primary into one of enormously increased tension or potential in the secondary. This enormous increase of tension in the secondary current causes the disruption of the intervening air and the current streams across between the ends of the secondary in the form of an electric spark or discharge. The greater the tension produced, the longer is the air space over which this secondary discharge will leap. It may give you some idea of the enormous increase in tension produced by large induction coils when I tell you that the coil I use will produce in its secondary a current of something like 200,000 volts, giving a discharge over 42 centimetres, or about 17 inches of air space.

Another term to which I wish to draw your attention is the expression "frequency." This almost explains itself, since it merely denotes the number of times that the current alternates or oscillates in a given time.

The expression "oscillatory" is more difficult to explain. It has been known that for a long time that under certain conditions a very high tension current will become what is termed oscillatory, that is to say, it will swing or oscillate with enormous rapidity from a condition of great tension or potential on one side, down to zero, and across zero to equally great tension or potential on the opposite side, and back again to its original tension, and so on. An apt illustration of the action of an oscillatory current consists in comparing it to the vibrations of a long straight sensitive steel rod or spring, fixed at one end and free to vibrate at the other. When this vibrates, it reaches with great rapidity a position of maximum distance, to the right and to the left alternately, of its position of rest, which latter represents the zero of electric potential, while the maximum distances on each side represent the maximum potentials on either side of the electric oscillations. Perhaps the following illustration may help you to understand this even better. Suppose you take a

Digitized by Google

large U tube (Fig. 1), and pour some mercury into it, closing the top of one arm so that the mercury remains at a different level in the two arms, as shown in the figure. If you now suddenly unclose the top, the mercury will rush with such great force from the arm in which it is at the higher level into the other one, that it will overshoot its position of equilibrium, and will fall back, and in this way will oscillate for a considerable time between the two arms of the U tube. This is exactly what occurs in an oscillating electric current.

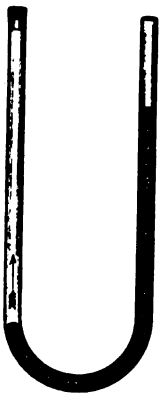


FIG. 1.

So far back as the year 1842, Joseph Henry stated his belief that the discharge from a Leyden jar was of an oscillatory nature; and some 10 years later Lord Kelvin proved, by mathematical calculations, that under certain electrical conditions a current cannot fail to become oscillatory. He was, however, unable to demonstrate this experimentally at that time. About the year 1861, Feddersen succeeded in showing, by means of a rapidly rotating mirror, that this discharge was truly of an oscillatory nature, thus verifying the anticipations of Henry, Lord Kelvin, Helmholtz and others. Since then the oscillatory character of these currents has been fully demonstrated, and the oscillatory spark has even been photographed, the photographs very clearly showing its oscillatory nature.

Probably, you are all more or less acquainted with Nikola Tesla's remarkable experiments. Now D'Arsonval's form their counterpart, since while the special object of the former is the production of light, or some visible manifestation of electricity, the latter are concerned with its physiological and therapeutic effects, and disclose new facts in relation to the reaction of the nervous system to these high frequency currents. In this connection it may be mentioned that the physiological actions of currents of all frequencies and tensions were determined in France long before Tesla's first publication in America.

Although D'Arsonval's apparatus may be, and indeed usually is, made of great size and power, for therapeutic and experimental use, yet it is possible to demonstrate satisfactorily its peculiar electrical effects, on a small scale, and only experimentally, of course, with a simpler and smaller apparatus than that of Tesla. It differs from the latter in construction, and also in the fact that it produces a current more suitable for therapeutic use. D'Arsonval's apparatus produces these oscillatory currents in a very simple manner. The principle of the apparatus was previously made use of by Professor Oliver Lodge, from whose experiments D'Arsonval probably borrowed it. The following is a description of the apparatus:—

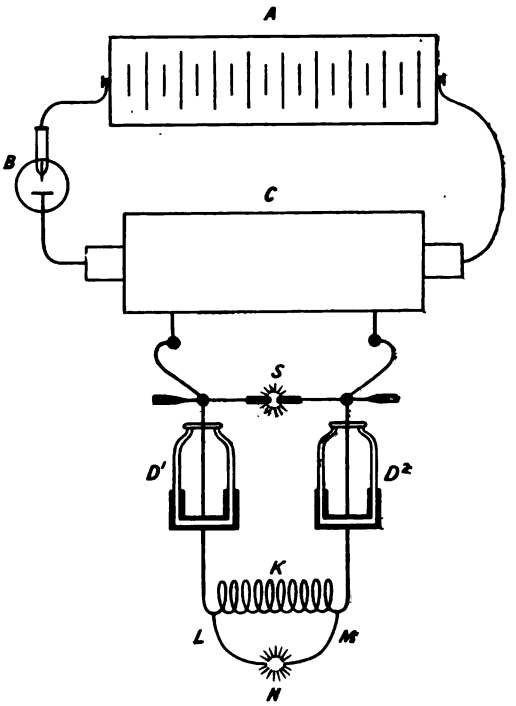


FIG. 2.

An induction coil (C) actuated by accumulators (A), or other suitable source of current, and working through a Wehnelt or other interruptor or break (B), has its secondary connected to a pair of Leyden jars (D1 and D2) in the manner known as "in cascade," that is, the inner coating of each jar is connected to one end of the secondary, and a spark-gap (S) is so placed as to allow of discharge taking place between the inside coatings of the two jars. Now, an examination of the figure will make it quite clear that the outside coatings of the two jars are perfectly separate from all the rest of the electrical apparatus, that is to say, there is no direct electrical connection whatever between the outside coatings of the two jars on the one hand, and either the accumulators, the coil or even the inside coatings of the jars on the other hand, since the glass of the jars themselves perfectly insulates the outer coatings from all the rest. Now, one would hardly suppose on casual consideration that much electrical energy could under any circumstances

Digitized by Google

be developed in the few square inches of tinfoil composing the outer coatings of these jars, yet I think I will demonstrate to you that their power in this direction is astonishingly great.

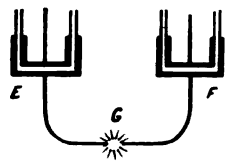


FIG. 3.

If one attaches a copper wire to each outer coating and brings the ends of these two wires (E and F)* close enough together, a discharge surprisingly great will take place at the spark-gap (G) between them. If a piece of fine iron wire be attached to the ends of these two wires so as to bridge the gap (G) between them, it will be found that the current generated is sufficient to almost instantly make the wire red hot, then white hot, and finally to fuse and deflagrate it.

If a separate piece of fine iron wire be attached to the end of each of these copper wires, and the two pieces of iron wire be inclined towards one another in such a way as to resemble the letter V with its angle cut off (H and I, Fig. 4), it will be seen that ample current is developed to completely fuse and burn up the iron wire.

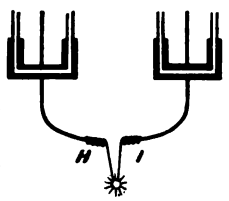


FIG. 4.

Again, if a 230-volt lamp is attached to the ends of these copper wires (Fig. 5), it will be seen that the current from the outer coatings of the jars is sufficient to brightly illuminate it. It is thus very plain that there is a most remarkable development of electricity in these small areas of tinfoil constituting the outer coatings of the Leyden jars. Now, this is the current which is made use of by D'Arsonval, and he completes his apparatus by connecting the outside coatings of the two Leyden jars by a spiral bobbin of copper wire so thick that it may be said to have practically no electrical resistance whatever (K, Fig. 2). D'Arsonval found that this acted, if I may be permitted so to express it, in a reflex sort of way, and very greatly increased the already high tension and great frequency of this current. Now, under all ordinary circumstances and for all ordinary currents, such a procedure would simply mean "short-circuiting" the outsides of the two jars—that is to say, any ordinary current developed in the outer coatings of the jars would simply discharge itself across the copper wire connecting them in the same manner for instance as you saw it just now discharge through the 230-volt lamp and illuminate it. However, I will be able to show you that we have now to deal with a current of so extraordinary a nature that it will not do this.

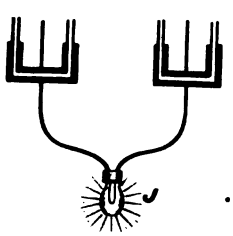


FIG. 5.

Before doing this a little preliminary explanation is necessary. It is a well-known principle in electricity that every electric current will produce, or, to use the correct term, will "induce" a new current in any electric circuit in its neighbourhood; and further, that the tendency of the new (or "induced") current is to "impede" the original current that induces it. It is most essential to bear these two facts carefully in mind, in order to understand the action of D'Arsonval's apparatus. Now, this inductive action only takes place at the moment of starting of the original current, and at the moment of stopping it. Hence, to obtain the maximum number of "induced" currents, or, in other words, the maximum inductive effect, it is necessary to alternately start and stop the original or "inducing" current with great rapidity. This requirement is very perfectly fulfilled when an oscillating current is used for the inducing current; for in this case the potential of the inducing current is not only reduced to zero—that is, the current is stopped—but it is actually reversed, and exercises consequently its inductive action in the opposite direction; and since this reversing of potential occurs with enormous frequency, the total inductive effect of an oscillatory current must necessarily be exceedingly great. Now, D'Arsonval found that the current between the two outer coatings, which the preceding experiments have demonstrated to you, was an oscillatory current, oscillating with enormous frequency, and consequently possessing very great inductive power.

Now, as already stated, the spiral bobbin of wire would "short-circuit" the two outsiders of the Leyden jars for all ordinary currents, and since this spiral of thick wire possesses practically no electrical resistance, it would only be possible to maintain a difference of potential of merely a few volts between the two outer coatings with an ordinary current at the cost of sending through the bobbin of wire so great a current as would almost instantly fuse and volatilise it. But here the oscillatory current begins to show its peculiar nature. It has an invincible repugnance to enter the wire; in fact, it will travel by almost any other path, even by a path of very great electrical resistance,

* In this and the following figures, in order to save repetition, only the lower portions of the jars with any apparatus that may be attached to their outer coatings are shown.

Digitized by Google

rather than traverse this spiral of copper wire. We can, for instance, show how reluctant the discharge is to traverse the bobbin by several experiments. First we will offer it an alternative path by connecting a piece of wire (L and M, Fig. 2) to each end of the spiral bobbin, and bringing the free ends of these together so as to form a spark-gap (N, Fig. 2). Now, I need hardly point out to you that this path, electrically speaking, is a very difficult one for a current to traverse, since it contains an air-space which the current must leap over, and which is of high electrical resistance. Thus you see this oscillatory current has now the choice of two paths—one, an exceedingly easy one of practically no electrical resistance, through the spiral of wire; the other, a very difficult one of great electrical resistance, through the wires L and M and across the spark-gap N. You will see that it prefers the latter path.

If you now substitute for these wires (L and M, Fig. 2) the wires of the 230-volt lamp, you will find that the current prefers to travel round the lamp with its high electrical resistance and illuminate it rather than traverse the spiral bobbin.

I will now attach to the ends of the bobbin a single loop of wire with a lamp attached across the loop, as in Fig. 6. Now, in this case the current has the choice of three paths—the first through the bobbin of wire which I have shown you it has a great aversion to, the second round the loop of wire, and the third along the loop till it reaches the lamp, across the lamp, and down the other arm of the loop. Now, the second path along the single loop of wire looks naturally so easy that it is extremely difficult to believe that the current will not travel entirely by it. It does not do so, however, since you will see that it will travel across the lamp and illuminate it, although a glance at the diagram will show you that this lamp is doubly "short-circuited." In this case it is really found that the current is travelling partly round the loop and partly round the lamp. This can be demonstrated by altering the position of the lamp by sliding it up or down the loop, when less or more current will cross the lamp and illuminate it less or more brightly. This shows that the current divides itself between the loop and the lamp, according to the position the lamp occupies on the loop.

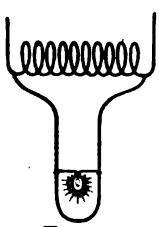


FIG. 6.

These experiments show conclusively that this current is of a most extraordinary nature. Why does it refuse to traverse the spiral bobbin, which, as I have already stated, possesses no electrical resistance? You will find that the cause lies in its shape. Were the wire straight, that is, were the coils of the spiral to be straightened out, you would find that the current would pass through it readily enough. The explanation, very briefly put, is then as follows:—When any electric current traverses a spiral bobbin such as this, the current in each turn of wire exercises an inductive effect on all the other turns, affecting those nearer to it more powerfully than those further away, and since the ultimate effect of inductive action, on the inducing current, is, as I pointed out to you, in the direction of "impeding" or stopping it, there must always be more or less of a retarding action when any current traverses a closely wound spiral. In the case of all ordinary currents this retardation is so slight as to be practically unnoticeable; but in the case of oscillating currents, whose inductive effect I explained to you must from their very nature be enormously great, the retarding effect or "impedance," as it is called, is so great that it actually is able to prevent any current passing through the spiral at all. When I tell you that Professor Fleming, of University College, London, states that with this apparatus it is possible to obtain currents whose tension can only be measured in millions, or perhaps hundreds of millions of volts, and which are oscillating with a frequency whose rate can only be measured by taking as a unit of measurement the ten millionth part of a second, and that this is fully borne out by the statements and experiments of others, you will get some slight idea of how enormous the inductive power of such currents must be. I do not wish to infer that these currents are always of such tension and frequency, for on the contrary both their tension and their frequency may vary within very wide limits. Several other causes besides induction are, however, at work in assisting to produce this result, and involving other and complex theories, but I have purposely omitted all reference to them since I desired to make the explanation as simple as possible. Those who desire more information can refer to the text-books on this subject.

The fact that the obstacle to the current is really the shape of the spiral bobbin can be demonstrated by an experiment introduced by Professor Fleming. In this it is shown that if an electric lamp be so attached that it is illuminated by this current, and its own connecting wires be twisted into a number of spiral turns, the current refuses to traverse these and the lamp goes out, only to illuminate brightly again when the turns of the spiral are straightened out.

Digitized by Google

Now, what would happen if this current were allowed to pass through the human body? One would imagine that a current whose tension is so enormous, and whose power is undoubtedly very great, would surely produce very unpleasant consequences. It would certainly do so if it were any ordinary current; but here its peculiar nature again manifests itself. It is said that the discovery of the Leyden jar was accidentally made by Cuneus, a pupil of Muschenbroeck's, an eminent philosopher of Leyden in the year 1746. He got a shock from it which sent him to bed for several days; and afterwards, writing about it to his friend Reaumur, he said he would not repeat the experiment for the kingdom of France. Now, one would think that any person with temerity enough to allow this oscillatory current, with its enormous potential, to pass through his body, would possibly end by endorsing the statement of Cuneus. It is found, however, strange as it may seem, that the passage through the body of these oscillatory currents is accompanied by either no subjective sensation at all, or by so little that it is not even unpleasant. One way to try this is to touch each end of the bobbin, but a better way is to attach to each end a wire leading to an ordinary handle, such as used for the Faradic current. You will be astonished to find on grasping these handles that the passage of the current produces no sensation whatever, unless you allow it to spark, when a slight tingling or burning sensation will be felt at the spot where the sparks are seen.

That the current is really passing through the body may be demonstrated in several ways. If one grasps one of the handles and brings a finger of the other hand (or, better still, a piece of metal grasped in this hand) within a short distance of the disengaged handle, the current will show itself by a considerable spark.

Again, if the handles are grasped one in each hand and then one end of a straight piece of wire be placed on the back of the neck, and the other end brought close to the back of the hand, sparks will be seen, showing that the current is passing partially through the body and partially through the wire.

A 230-volt lamp attached to one end of the bobbin, and in circuit with the body, will be found to light up, the current lighting it of necessity passing through the body.

Now, if the terminals of this 230-volt lamp be attached to handles which are firmly grasped by one hand of each of two assistants, the lamp being thus suspended by them in the air, and the handles attached to the spiral bobbin be grasped by the other hands of the assistants, it will be clear that the body of an assistant is interposed on each side, between the bobbin and the lamp, and equally clear that it is impossible for any current from the bobbin to reach the lamp unless it first goes through the bodies of the two assistants. Now, the amount of any ordinary current which is necessary to illuminate this lamp is sufficient to certainly cause the death of these two assistants. There is no doubt whatever about this; and yet you will see that the lamp is illuminated by the current which traverses their bodies, not only without killing them, but without their feeling any sensation whatever. (Fig. 7).

In his demonstration before the Academy of Science in Paris, D'Arsonval used as the source of electricity a dynamo current of 350 volts. With this large current he was able to light six lamps in series with the current that passed through the bodies of two of his assistants without their feeling it in any way. Although no subjective sensations are thus produced, the passage of the current through the body manifests itself in several remarkable ways. D'Arsonval showed, for instance, that if allowed to pass by grasping the handles for a time, it rendered the skin of the hands in contact with the handles anæsthetic, and that this local anæsthesia would last from a few minutes to half an hour; also, that a curious sensation of cutaneous heat all over the body was produced, followed by very copious perspiration; and that if applied to a wound in an animal, from which the blood was slowly trickling, it produced such rapid dilatation of the vessels as to cause the blood to instantly flow in a copious stream. It has been said that these high-tension currents do not penetrate but merely travel over the surface of the skin. The vaso-motor disturbances above mentioned, as well as numerous other effects, seem to clearly disprove this.

Now, it was soon found that the inductive influence of this bobbin of wire was so very powerful as to extend for a most unusual distance around it. D'Arsonval proved this by some very astonishing experiments.

If an electric lamp is attached to each end of a few inches of wire forming a ring or loop which practically "short-circuits" the lamp, and this is then brought within the influence of the bobbin, enough electricity to light the lamp will be induced in the small ring of wire. A good way to demonstrate this is to substitute for the horizontal bobbin a vertical one, and to hold the lamp with its ring of wire over it. It might be imagined that the current lighting the lamp was in some way derived from the bobbin by leakage or conduction. To disprove this, it is only necessary to completely insulate

Digitized by Google

the vertical bobbin by putting a glass cover over it, when the lamp will be found to light up just as before.

If we make some copper wire into a coil of a few turns of smaller diameter than the bobbin, and after attaching the lamp to it insert it into the interior of the latter, you will see that the inductive effect is sufficiently great to produce in the wire sufficient electricity to light the lamp, although it is in no way in contact with the bobbin; indeed, it may be completely insulated from it as by a glass barrel.

This lamp with its few turns of wire then occupies precisely the same position as the patient does when placed in the large solenoid for auto-conduction, as it is termed, and just as the electricity is developed in the wire and illuminates the lamp, so a great development of electricity takes place in the patient's body. If a lamp is now attached to a single loop of

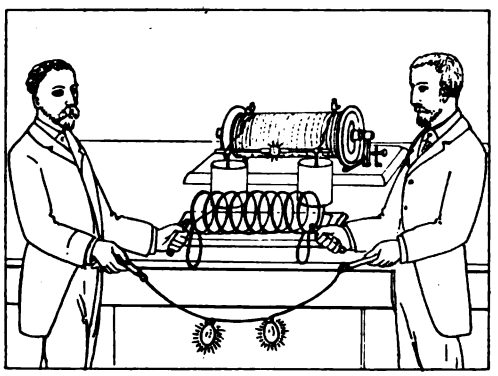


FIG. 7.

wire large enough to encircle the bobbin on the outside, the lamp will be found to light in this position.

If two coils be made, as shown in Fig. 7, it will be demonstrated that this inductive influence extends even many feet away from the inducing coil. The left-hand coil is connected to the outer coatings of the jars, and the right-hand one has a lamp attached to its terminals. The lamp will be found to light up brilliantly even when the coil to which it is attached, and which is, of course, in no way connected with the rest of the apparatus, is held at a very considerable distance away, thus demonstrating the powerful influence of the left-hand coil.

Having thus demonstrated the enormous inductive power of this peculiar electrical apparatus, and shown clearly that it manifests itself both inside and outside the coil and for a considerable distance away from it, I must now show you how this is applied to therapeutic use. Dr. Oudin found that if a second coil of wire were brought within the influence of the first coil, similarly to the coil supporting the lamp in the last experiment, a further development took place. This he termed a "resonator," and it is now for various reasons attached to the first coil. With a large apparatus, such as I show you here (Fig. 9), it is possible to produce some very striking effects. The current is now raised

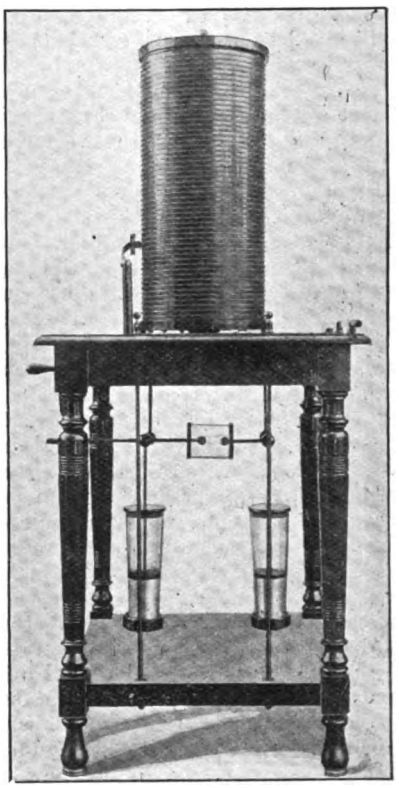


FIG. 9

to such enormous tension that it will disseminate itself through the air in large brush-like discharges; it will illuminate Geissler and other vacuum tubes when held in the air free from all contact with it and at considerable distances away from it; it will condense on the bodies of those near it, but not in actual contact with it, to such an extent that sparks will pass on their merely touching other persons, or on making contact with metal objects such as gas-fittings with the finger or hand. Indeed, it is quite easy to light the gas by merely touching the jet with the finger. These large brush-like discharges, known on the Continent as the "effluve," and even the noisy sparks which appear when the instrument is approached closer,

Digitized by Google

may be taken into the body without any of the subjective sensations ordinarily associated with electric discharges. They, however, produce marked physiological and therapeutic effects; but before mentioning these in detail it will be better to describe the methods adopted in using this current. This is done in one of three ways. In the first of these a very large solenoid is used, in which the patient is placed, and its two ends are connected to the outer coatings of the Leyden jars. The patient then occupies the position of the lamp and wire, as I pointed out in a preceding experiment, and in this way very powerful currents are produced in the body of the patient himself. D'Arsonval demonstrated this by showing that if the patient held an electric lamp in his hands without its being in contact in any way with the enveloping solenoid, it would light up from the currents generated in his body. This method is known as auto-conduction, although I think auto-induction would be a better term. In the next method the patient is placed upon a couch or arm-chair having a large sheet of insulated metal under the cushions forming one pole, while the patient forms the other. This is called auto-condensation. In the third method the brush-like discharge from one pole of Oudin's resonator or "effluve" is applied by means of specially made electrodes to the particular part of the patient's body requiring treatment. If preferred, both poles may be connected to proper electrodes and applied to the patient. This is known as the resonator treatment. The treatment is applied every second or third day, and is kept up for a considerable time.

The physiological effects of these oscillatory currents are of a most peculiar nature. As I have mentioned, D'Arsonval discovered that it produced a local anæsthesia, due to its action on the sensory nerves. Both motor and sensory nerves appear, however, to be insensible to oscillatory currents, which attain a frequency of twenty to thirty millions per second; that is to say, there is no response in the shape of either muscular spasm or sensation. The following explanation of this peculiar fact has been suggested:—We all know that the optic and auditory nerves have each only a certain limited range or gamut over which they are sensible to those vibrations, which we term light and sound. We also know that there are vibrations beyond either end of both these gamuts, and we can demonstrate their presence there experimentally. Yet neither the optic nerve receives any light impression, nor the auditory nerve any sound impression from these vibrations. If, for instance, you fix a piece of steel spring so that its free end just strikes the teeth of a cogwheel which can be made to rotate rapidly, as in a lathe, you will notice that when the speed is slow, the steel simply gives out a low-toned, clattering sound; as the speed increases the sound rises in pitch, and gets shriller and shriller, until, when an enormous speed is at-

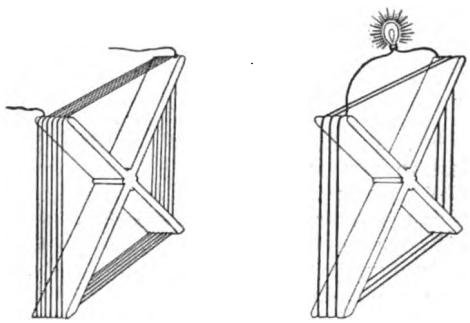


FIG. 8.

tained, the sound finally vanishes. This means, not that the vibrations have ceased, but that they have attained to such a frequency as puts them beyond the range of our auditory nerves. So, with these high frequency oscillatory currents, the enormous potential of the current in the one direction is unable to produce an effect on the sensory nerves before the current neutralises it by oscillating to the opposite potential. The time required for a sensory impression to be transmitted to the nerve-centres by these nerves is very small, but it is relatively very huge when compared to an oscillation which only occupies the ten-millionth part of a second. The effect on the vaso-motor system is probably at first one of paresis, followed very rapidly by reaction, evidenced by a primary fall and subsequent increase of the arterial tension. This manifests itself by a local reddening of the skin, a general glow or feeling of warmth all over the body which the patient notices and usually comments upon, and a more or less powerful sudorific effect. They also exert a very powerful influence over the metabolic changes going on in the body, and which are concerned in nutrition and the production of animal heat. This is evidenced by the fact that D'Arsonval found, by experiments on animals, that the output of carbonic acid was increased to, in some cases, over four times the previous amount, and the production of animal heat, measured in calories, increased as much as 50 per cent. As a natural sequence of such profound alterations in the animal economy, we find it recorded that the excretion of uric acid is diminished, and that of

Digitized by Google

urea very greatly increased. From numerous experiments which were carefully carried out, but which would occupy too much time to detail here, it was concluded that these currents had an ultimate bactericidal action. I say ultimate because it was found that their first effect was in the direction of stimulating both the growth and the activity of micro-organisms. It was this ultimate bactericidal action that suggested their employment in phthisis.

On reading the reports of numerous cases of consumption treated by this method by various practitioners, one cannot fail to be struck with the very marked improvement which occurs in most instances, and which seems to follow its use in the hands of all those who have adopted it. Amongst these I may mention Chisholm Williams of London, Doumer, Oudin, Apostoli, Gandil, Rivière, Bergonié, and many others on the Continent, and whose contributions are published in the English and Continental journals. Chisholm Williams published an account of 43 cases which, he says, were picked for the severity of their symptoms, and which showed remarkable results. He has since published the results of further successful cases. Numerous cases are also published by the Continental practitioners mentioned and others with gratifying results. It is interesting to consider the effects generally observed by them in patients suffering from consumption during and after the application of these currents. I may mention that in nearly every case the diagnosis of tubercular disease arrived at by ordinary examination was confirmed by bacteriological examination, proving the presence of the tubercle bacillus. During the actual application the pulse rate is raised, and the feeling of warmth previously mentioned is experienced. Following this is an increase in the secretion of the skin and of the kidneys; reaction in the shape of a rise of temperature, greater in proportion to the length of the application, occurs within 24 hours or so, usually falling to or even below the patient's usual temperature within about the same succeeding period of time. This reaction, which may at first be very considerable, gradually gets less, so that in about three weeks or so the evening temperature never reaches a high point, and usually after that time the temperature remains constantly at normal. Coincident with this is a disappearance of night sweats, an increase in appetite, due to improved digestive power, and a gain in weight. The weight may, however, diminish at the beginning of the treatment. The ultimate gain in weight is in many cases quite remarkable. The sputum increases at first, and contains more than the usual evidences of lung destruction in the shape of lung tissue, pus, and blood, but after the first two or three weeks begins rapidly to decrease in amount, and to become gradually more and more mucous in character until in most cases it finally ceases. Several observers point out, however, that scattered moist sounds may still be heard in the lungs even after this stage is reached. The action on the bacilli is, to say the least, remarkable. At first they are increased, and after the first few applications they may become greatly increased. After treatment has extended over some weeks, however, they begin to decrease, and in many cases finally disappear, although it seems to be the general experience that they may continue to be found in some cases for a considerable time after the general improvement in the patient's condition has become most marked—sometimes, for instance, to the extent of enabling a sufferer previously invalided to return to work. This would probably be an imperative indication for continuing the treatment until the bacilli can no longer be found. Two theories have been advanced to explain the mode in which the bacilli are ultimately destroyed. The first is that the great increase in the bacilli leads to "over population," and consequent starvation and destruction. This finds its support in the experiments of Wolfenden and Forbes-Ross. The second is that there is an enormously stimulating effect on normal healthy cells, increasing both their number and their power of coping with and overcoming the invading bacilli.

It should go without saying that the best results are to be expected in the earlier stages of this disease. It is unreasonable to expect any form of treatment to do any more than ameliorate those painful cases in the later stages of this disease which it is unfortunately too often our lot to see, but even in some such cases reported this method appears to have been productive of considerable benefit.

In using this treatment it is in no way necessary to abandon older methods whose value has long been proved and recognised. It has become too much the practice, as soon as a new remedy or mode of treatment is brought forward, to adopt it to the exclusion of all else, usually with the result that it fails to realise the high expectations formed of it. Enough has been done to show beyond all doubt that in this treatment we possess an exceedingly valuable adjunct to our methods of dealing with chronic tubercular disease, but no one should at present advocate it as a cure for consumption *per se*. On the other hand, the results obtained from it are so exceedingly good that no one can afford to neglect its use in such cases

Digitized by Google

Simple though the apparatus may appear, the large sets adapted for therapeutic use should be confined to the hands of experts, since it is

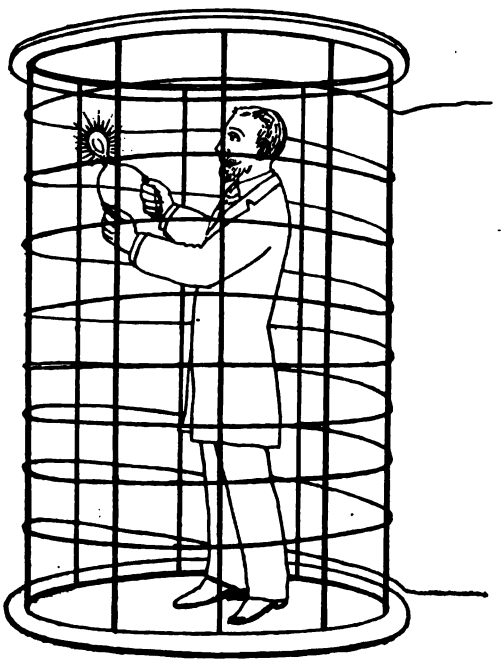


Fig. 10.

possible that in the hands of one unaccustomed to the use of electrical appliances either the results may not be obtained on account of the current not being properly applied or actual harm may even be done.

It is a remarkable fact that recently a number of cases of diabetes have been recorded in which the application of this current was followed by an appreciable decrease of the amount of sugar in the urine. It has also been found that the exquisite pain of fissure in ano completely disappears after a few applications of the "effluve." A very remarkable case has recently been recorded by Chisholm Williams. In this he was applying the high frequency current to the patient's feet for some local condition. This patient had a patch of lupus on the face which was not under treatment. During the course of these applications to the feet, the patch of lupus on the face completely disappeared.

Whatever the healing radiation—and it seems certain that it is some form of radiation—may be, it appears to exist in common in ordinary sunlight, in the light of Finsen's carbon arc lamp, in the radiation from an X-ray tube, very powerfully in the iron electrode lamp, and in this high frequency discharge, although the latter evidently appears to be by far the most suitable form for the disease we are considering. It has been repeatedly described as ultra-violet radiation. This may be so, but so far as I know no proof of this has ever yet been brought forward; indeed, at a recent scientific meeting in England considerable doubt was cast on this theory.

In conclusion I desire to reiterate that the results attained by this treatment in cases of consumption are well deserving of the attention of all, and must necessarily in the future give it a very prominent place in the treatment of this dreadful disease.

NOTES ON A CASE OF CEREBELLAR ABSCESS OF OTITIC ORIGIN.

By G. T. Hankins, M.R.C.S., Surgeon to Nose, Ear and Throat Department, Prince Alfred Hospital, Sydney.

On the afternoon of April 2nd I was asked by one of the residents of the Prince Alfred Hospital to see a child who had been for some time under treatment on the physicians' side. Being engaged at the time preparing for an operation, which, moreover, was not over until late, I forgot the message, and left the hospital without seeing the patient. On my next visit on the morning of April 4th, the medical superintendent reminded me of the case, which was one presenting irregular cerebral symptoms, accompanied by a discharge from the ear. He also informed me that whilst under an anæsthetic the day before, given for lumbar puncture, the child had ceased breathing, and did not recover until artificial respiration had been persevered in for two hours. He thought the child was almost moribund, and was doubtful if I would propose to do anything.

A case reported by Dr. Macewen, of Glasgow, in his work on "Pyogenic Diseases of the Brain and Spinal Cord," at once occurred to me, where during an operation for abscess of the cerebellum the patient ceased breathing, and where, instead of waiting to perform artificial respiration, the operation was hurried on and the abscess tapped, when respiration was promptly restored.

After seeing the patient I decided to operate the same afternoon, strongly suspecting the existence of abscess of the cerebellum.

Case A. B., female State child, *æt.* 4. *Admitted March 21st* (a fortnight before I saw her). The patient had been ill one week, commencing with pain in right ear, which had been discharging offensive pus for some years.

Digitized by Google

The attack of pain was followed the next day by convulsions, which lasted about 36 hours. Since this time the child has been more or less unconscious, and (as has been learned since the operation from its adopted mother) the child has been quite blind since the convulsions.

Condition on Admission.—Patient lies on her side with knees drawn up and head retracted; crop of herpes on lip; Kernig's and Babinski's signs absent; knee-jerks present; pupils equal and react to light; temperature 98°. Child is very restless and passes her motions under her.

Seen on same date by Dr. Sinclair Gillies, who, suspecting cerebro-spinal meningitis, performed lumbar puncture, 1½ oz of clear fluid being withdrawn. Dr. Gillies gave instructions that if on examination no organisms were found in the fluid, I was to be asked to see the patient.

March 27.—No organisms were found; but the patient seemed so much better after the lumbar puncture that I was not communicated with. Temperature normal; no optic neuritis; appears partially blind in both eyes; points to right mastoid as seat of pain.

April 2.—Child not so well; temperature 100°; resents interference; offensive discharges from right ear; aural surgeon to be asked to see case.

April 3.—Condition worse; head markedly retracted; temperature normal; pulse 76; under chloroform lumbar puncture was repeated; 3 oz. clear fluid withdrawn; under the anæsthetic breathing ceased, and was not restored until artificial respiration had been continued for two hours.

April 4. — No improvement; child unconscious except when roused; head, neck and spine drawn backwards; frequent mechanical yawning; operation same afternoon; no anæsthetic was given on account of the respiratory trouble the previous day; it was trusted that the degree of unconsciousness would prevent much pain being felt. The radical operation of clearing out the mastoid antrum and cells with the tympanum and attics was proceeded with. No actual pus seen, but granulation tissue and the ossicles were removed. This cavity was now packed off with iodoform and gauze, and the removal of bone extended backwards. On opening the groove of the sigmoid sinus, pus appeared. The bone was removed for the whole length of the groove, and granulations curetted away. The intra-cranial pressure was so great that the walls of the sinus were in apposition, and it was difficult to make out its margins.

The dura was incised over what was supposed to be the sinus, and a free flow of blood obtained, showing absence of thrombosis. Pressure with gauze had (combined with the intracranial pressure) prevented any great venous flow, and the bone was still further removed backwards until one was well beyond the sinus. The bulging dura was then opened and a pair of sinus forceps passed into the substance of the cerebellum. At a depth of about 1½ in. pus was reached, and the forceps passed in for another inch without meeting any resistance. About an ounce of pus flowed away, and a fair-sized rubber tube, about 1½ in. long, was inserted and the pus allowed to flow slowly into the dressings, the rest of the operation area being packed off with iodoform gauze.

Immediately after the evacuation of the pus, patient's condition improved, and she became more conscious, answering when spoken to. The dressings were changed late at night, and much pus had flowed into them. Child still better. Pulse risen to 154.

April 5.—Tube blocked with clot; removed, and cavity syringed out with boric lotion. Cavity apparently much lessened in size. Tube shortened half an inch and replaced. Patient sensible.

April 6.—Discharge serous only. Tube removed, cavity syringed and tube replaced by strip of gauze.

April 7.—Condition about the same. Child answered questions; taking food; bowels acting naturally; temperature normal; pulse 120.

11 p.m.—Change for the worse. Head retracted; marked opisthonotos; knee-jerks slight, but more on right; marked ankle clonus on right, spurious clonus on left; Babinski's sign present on both sides; abdominal reflexes not obtained; pupils small and react slight. Gauze drain removed by Mr. Hankins and probe passed in for about two inches. No pus followed; fresh gauze inserted.

April 8.—Child almost unconscious, but general condition fair; retraction of head marked; refuses food; temperature 96°; pulse 80.

2 p.m.—Child has just had a spasm; went quite rigid with opisthonotos and had twitching of face; pulse 56. Child now tries to take food, but has great difficulty in swallowing.

April 8, 10 p.m.—Child very restless; pulse 160; not taking food at all; retained nutrient enema; it has had several spasms during day.

April 9.—Child quieter; retains nutrients well.

April 10.—No convulsions since previous note.

April 11.—One convulsion.

Digitized by Google

April 12.—A great deal of purulent discharge from nose; child died this evening; had two convulsions during day.

P.M. Notes.—Examination 19 hours after death. On exposing brain, membranes and convolutions healthy. On lifting the brain, cerebro-spinal fluid in excess of normal flowed away, but it was quite clear.

On incising the tentorium along the pyramid of the temporal bone on the right side, the cerebellum was found attached to the dura, and on separating them offensive-smelling green pus welled up from a large abscess cavity in cerebellum.

On removing the brain, the cavity tapped at the operation seemed contracted and quite clean. The orifice of the cavity opened on removing the brain was sloughy, and the walls of the cavities now empty lined with thick pus.

The distance between the orifices of the two abscesses is rather less than an inch, corresponding with the breadth of the sigmoid sinus, which separated them. On the posterior aspect of the pyramid of the temporal bone, half an inch within the groove of the sigmoid sinus and just below the superior petrosal sinus, the dura was loosened from the bone, which here presented an erosion. This spot corresponded with the adherent cerebellum, and was no doubt the starting point of the abscess. The brain was placed in formalin so as to harden somewhat before cutting.

After 48 hours the cerebellum was sliced, and a third cavity an inch in diameter, quite full of thick pus, was found. This abscess had no evident connection with the last one opened, although no doubt they were really continuous through some minute opening. Its relation with the one opened at the operation was more clear, as a line of discoloured cerebral tissue could be traced between the two.

The chief points to be noticed are, first, as to symptoms. Abscess of the cerebellum may present very few localising symptoms, but cessation of respiration and mechanical yawning when present may fairly be regarded as such. The absence of vomiting and of optic neuritis in this case are also worth noticing.

The attack of convulsions at the commencement of the acute symptoms point, I fancy, to a sudden increase in size of a previously latent abscess.

The absence of ordinary meningeal symptoms, such as acute delirium, high temperature, etc., should, perhaps, have warranted a more thorough search for pus in the latter stage of the illness than was carried out.

As to the operation: It is a question whether in searching for cerebellar abscess in connection with the radical mastoid operation the exploration should be made in front of or behind the sigmoid sinus. The former in this case would have tapped the original abscess cavity, and possibly the two other cavities might have been emptied by the same route. This method has the advantage of exposing the posterior surface of the pyramid of the temporal bone, where the focus of the disease is most likely to be found; but it has the disadvantage that the discharge is likely to contaminate the area of the mastoid operation, whereas if the opening into the cerebellar fossa is made further back the mastoid cavity can be shut off.

As to the after treatment: I think if I had used the sinus forceps when the symptoms recurred, for exploring the cerebellum, I should have struck the other collections of pus. Unfortunately they were mislaid, and I foolishly contented myself by using a probe, with the result that I found nothing. The track made by a probe closes after it on being withdrawn; and the pus being very thick made it all the more impossible for it to follow. A more diligent and thorough exploration at this stage would, I expect, have saved the little patient's life, but even then it is conceivable that the third cavity might have been overlooked.

The brain is on the table for your inspection.

(Read before the New South Wales Branch of the British Medical Association.)

A CASE OF CEREBELLAR ABSCESS.—FAILURE OF RESPIRATION DURING OPERATION.—RECOVERY.

By J. H. Phipps, M.B. (Lond.), M.R.C.S. (Eng.)
Mosman, Sydney.

PATIENT is a tall lad of 19, always a quiet, reserved boy. Had ear trouble first when two years old and not again then until he was 14, after which he frequently had pain and offensive discharge from the ear. On April 18th, 1903, he had severe pain in the ear and saw Dr. Brady, who ordered leeches to be applied, and warned the parents of the possibility of further trouble. The pain was relieved, and he continued well for four days, when he came under my care. He then was somewhat lethargical and complaining of severe headache only in the frontal region, which was relieved somewhat by cold applications and pressure of the hand. The ear was quite clean and sweet, the membranum tympani intact. Pupils equal, and reacting to light; tongue slightly furred. Temperature subnormal; pulse 60, a condition which the father maintained that he had often noticed; no pain on

Digitized by Google

heavy pressure over antrum or skull. Patient continued the same for three days, the tongue becoming more coated. Dr. Sinclair Gillies saw the patient with me, and after a careful examination found no nervous symptoms and no optic neuritis. We agreed as to the possibility of cerebral abscess, but not sufficient to warrant surgical interference. Patient was then coughing slightly and bringing up purulent sputum, but no physical signs could be found in the lungs. Patient continued the same for three days—headache continuing and tongue becoming more coated and foul, and next day patient was distinctly drowsy, being slow to answer questions. The following day the pulse went up to 104 and temperature 97·6°, and he was more comatose. Dr. Brady saw him with me that afternoon, and we agreed that immediate operation for cerebral abscess was the only chance of saving the patient. He was removed to a private hospital and placed at once on the table, and the scalp shaved; his pulse was then 140 and he was comatose, but could be roused. He took chloroform well, not more than ½ dr. being administered. Dr. Brady made a semicircular incision behind the ear, and the skin was being reflected when the patient was noticed to be somewhat cyanosed, the respirations being shallow and soon stopped. Artificial respiration by combined Sylvester's method and chest compression was commenced at once, and continued for about 15 minutes. The pulse could be seen beating strongly in the suprasternal notch; it was then found that chest compression was sufficient to aërate the blood to allow the operation to proceed. The temporo-sphenoidal lobe was trephined, and explored with negative results. The cerebellar lobe was then trephined and an abscess opened, about half an ounce of pus being evacuated and a fairly large drainage tube (about $\frac{5}{16}$") inserted for about two inches. The antrum was next chiselled and opened: a quantity of pus and cholesteatomatous mass curetted out. At some time between trephining the temporo-sphenoidal lobe and evacuating the abscess the respiration became automatic, the chest compression being continued till the end of the operation. The antrum was drained with gauze, the skin over the temporo-sphenoidal opening closed, and a couple of stitches placed between the antral and cerebellar wounds.

After the operation the patient was distinctly better, pulse being 130. He rallied well, becoming more awake daily, but was not apparently really conscious till the fourth day after, when he asked where he was. The antrum was syringed daily with boracic lotion, the cerebellar tube being simply removed and replaced. There was very little discharge from the cerebellar wound at any time, and for about ten days from the antrum or ear, it being possible to flush through the antrum to the ear. After four days the cerebellar tube was shortened, but after two days was lengthened again, as it was found that there was a tendency for pus to collect at the distal end, sinus forceps being used, and a knuckle of brain tissue was forcing out the shortened tube; after ten days the tube was again shortened at intervals. Three days after the operation the skin over the temporo-sphenoidal wound was opened, and some blood and brain *débris* and a spicule of bone removed, the wound then healing well. The tube in the cerebellar wound was removed on the 20th day, and what remained of the sinus rapidly closing and granulated up well.

From the third day I saw the patient there was some cough and purulent sputum of a nummular character. It was at first uncertain whether this pus came from the Eustachian tube or the lungs, as repeated examination of the lungs revealed no physical signs. This sputum has continued since in varying amounts, and on the sixth day after the operation patient complained of pain in the left chest; temperature, 101°; pulse, 136; and respirations, 24; the cerebellar sinus being apparently clear. This was relieved by a jacket poultice, and next day temperature was subnormal. This was the first time on which the temperature was over normal. No physical signs were found until the 14th day, when a small area in lower part of left axillary line was found with fine expiratory rales, which continued until the 22nd day, when the sputum became more mucopurulent and rusty; there was then dulness over base of left lung, diminished vocal fremitus friction sounds over dull area and at upper limit rales, and increased vocal resonance. For two days the temperature reached 99·8° and 99°, at other times was subnormal; the general condition of the patient being good, except for some headache at times. The sputum continued rusty for four days, and then became purulent again. I think that he has a septic broncho-pneumonia, the comparatively apyretic condition being possibly due to the patient being immune to the effects of the micrococci present.

It was fortunate that at the operation we had skilled assistance at hand, Drs. Sinclair Gillies and Harvey being present and rendered valuable aid.

Only for the lung complication I would have been able to have shown the patient here to-night.

Digitized by Google

NOTES ON A CASE OF CEREBELLAR ABSCESS.

By A. J. Brady, L.K.Q.C.P., etc., Sydney.

I FIRST saw C. O., aged 19 years, on April 18th of this year in my consulting room. He gave a history of middle ear suppuration lasting since childhood. A week ago he got cold; since then has had pain in left ear, in top and left side of head; vomited the previous night; no local tenderness or swelling; pulse 60. These symptoms taken together were sufficient to make one suspect intra-cranial suppuration. I wanted another link in the evidence, and advised an examination of the eyes by an ophthalmic surgeon to ascertain the presence or otherwise of optic neuritis. My advice was not taken, and I saw no more of the patient till 12 days later; I was suddenly called to see him by Dr. Phipps. He was then lying on his right side in a comatose condition. He could be partially roused, and cried out with pain on any attempt to move the head; the tongue was covered with a thick yellow fur; the pulse, which during his illness had been as low as 54 per minute, had risen to 140; the temperature had gone up to normal.

(Macewen states that a sudden rise of temperature, respiration and pulse points to rupture of an abscess into the fourth ventricle.)

His condition was desperate. It was determined to operate the same night. In a private hospital Dr. Harvey gave chloroform, and Dr. Phipps assisted. As there were no localising signs present, I determined to search for the pus in what appeared the most probable region. Here I may mention that although an examination had not been made by an ophthalmic surgeon, as I requested, Drs. Phipps and Gillies, who attended the patient during his illness, examined for optic neuritis and did not find it present. This was against a cerebellar abscess. An incision in the soft parts, to expose the bone for trephining, over the temporo-sphenoidal lobe, and opening the mastoid antrum, was just completed when the patient ceased to breathe. Artificial respiration was at once commenced and kept up by Sylvester's method for about half an hour. The heart was beating strongly, but there was no return of normal breathing. Fortunately Drs. Barrington and Gillies were present and rendered valuable aid. Had we been short-handed it would have been almost impossible to keep up artificial respiration and to continue the operation. As it was, I could not operate while the arms were being drawn above the head, so Drs. Barrington and Gillies, standing one on each side of the patient, made rhythmical compressions of the chest. This answered all the requirements. No more anæsthetic was needed. The stoppage of the respiration was the first indication of the probable location of the abscess in the cerebellum. As the incision was made for trephining over the temporo-sphenoidal lobe, to save time an opening was made here. No pus was found, but the relief of tension seemed to have a good effect on the respiration.

From the lower extremity of the mastoid incision an incision was now made backwards, dividing the soft parts and the muscles attached to the base of the skull in this region. On stripping off the periosteum there was very free bleeding from the mastoid foramen, showing the sigmoid sinus to be patent. A trephine opening was made behind the vertical and below the horizontal course of the sigmoid sinus, between the superior and inferior curved lines of the occipital bone. The needle of an exploring syringe was introduced, and pus escaped through it. The dura was now divided and a sinus forceps introduced alongside the needle. A large flow of pus to the extent of several ounces took place. The abscess cavity was not syringed, but several strips of gauze were used to soak up all discharge till the cavity appeared clean. The mastoid antrum was now opened and a huge cavity filled with a cholesteatomatous mass and pus was found. This was cleaned out, syringed and packed with gauze. A rubber drainage tube was left in the cerebellum. By the time the dressings were completed the patient was breathing regularly and was able to answer questions.

Remarks.—This patient had for years carried in his mastoid antrum a growing cholesteatoma. This condition could have been cured by the radical mastoid operation had he sought advice. Macewen ('Pyogenic Disease of the Brain," etc.) mentions a case of cerebellar abscess which was reported to him where artificial respiration was maintained for 24 hours; during the whole time the heart beat regularly. The abscess was not evacuated during life. To accurately locate a brain abscess may often be difficult or impossible. This should not prevent the surgeon from operating. He must search for the abscess and if possible find it; if he fails, as may happen to the best of surgeons, the patient will die; the evacuation of the abscess is his only chance. In this case the trephine opening was made where it would afford the best drainage—right at the floor of the abscess cavity. Where the sinus is thrombosed an opening can be made across its track. Such a route was not permissible in this case.

Digitized by Google

NOTES ON FILARIASIS.

By J. Flynn, L.R.C.P. (Edin.), Ipswich, Queensland.

Obscure diseases are often the expression of some form of helminthiasis, and many diseases that formerly were mysterious and inexplicable can now, with certainty, be referred to worms. —MANSON.

I APPLY the term filariasis in its restricted sense, and my remarks apply to those cases that have been met with here. The only filaria that I have met with here has been the F. sanguinis hominis or nocturna, the embryonic form of the F. Bancrofti, a mature parasite that lives in the lymphatics of man.

My adventures with these worms during the last five years comprise about 60 cases. For various reasons my remarks apply to 50 cases, of which I show some examples. The majority of these patients reside in the country, and many are very chronic sufferers.

As regards the possible source of introduction into this State, we know that the disease is very common in China and in the Pacific Islands, and we have many representatives from both possible origins in this district.

As to the clinical signs most prominent in this series, 7 show elephantiasis of one or both legs, 6 being females; 9 showed chyluria, 8 being males; 1 showed abscess in a lymph scrotum, with very foul pus; 4 showed lymph scrotum; 12 had chylous hydroceles, of which 2 were acute cases; 4 showed intermittent orchitis, from no ordinary cause; while 13 showed varicose lymph vessels in the groin, all bilateral, and all males.

I will not weary you with what can be found in any text-book on the subject, but w ll illustrate my remarks by showing a few patients who have been obliging enough to be present.

First, as regards the patients with elephantiasis. Those that I have seen are advanced in years, and are, of course, a burden to themselves, and have suffered for many years. We are told that it is unusual to find the filariæ in these cases, but in two of them I have found filariæ, while in the others there are sufficient signs to warrant the belief that they also are of similar origin. I have one slide to show the ova which are held responsible for the lymph stasis that is the origin of the increased size of the leg. Manson suggests that these ova are the result of abortion of the adult worm, due to some injury or accident. This idea finds some support in the history of two of my patients so affected. One patient blames her labour as the exciting cause. About six weeks after a severe instrumental delivery she had her first severe rigor, though in that interval everything had gone well with her. She had for many years without any suffering noticed the enlarged lymph vessels in her groin, and I think that her attack was filarial in origin. Her present condition is certainly so, and she still gets the typical pyrexial attacks at intervals of two months, each accompanied by an erysipelas-like appearance, and leading to an increase in the circumference of the leg. I have made a large number of blood slides from the affected limb, but all are negative. My second patient ascribes his attack to a bump while riding.

No treatment that I have seen carried out has been of any value, though rest in bed, elevation of the limb, and spirit dressings give temporary relief.

Among the nine patients affected with chyluria there is only one female. Five of these resided in Boonah, and all showed marked debility. In one there was palpable varicose condition of the prostate. He was a worker in a hardware store, and his intermittent chyluria could be frequently attributed to overlifting. With care, several weeks might elapse without a show, while at other times it would continue daily for a week or more. Each chylous outbreak was heralded about 36 hours in advance by a rigor, and accompanied by pains in the loins, considerable dysuria, and a tendency to sexual excitement, which eventually led him into trouble, and on to South Africa. This was the first patient in whom I found the filariæ. In the sediment that forms on standing, as well as in the portion just below the surface layer, they are numerous, but in my cases they did not show the same vitality as many others that I have met. One feature of the chyluria patients, not so noticeable in any of the others, is the anæmia and depression. One of my patients attempted suicide, and the female patient succeeded in her attempt. Rest in bed seemed to have some slight influence, only of a temporary nature, in checking the severity of the seizure.

One of the chyluria patients had an interesting combination of conditions—high continued fever for eight weeks, acute œdema of the scrotum, on one side of which was a chylocele, on the other a hydrocele containing cholesterin crystals in abundance, filariæ in his blood at night time, and a positive Widal reaction as ascertained at the Bacteriological Institute. He has since, while in Toowoomba, had a few minor attacks, and had not previously suffered from typhoid. I have not had further tests applied in this line yet.

Digitized by Google

The patient with the abscess in his lymph scrotum could give me no intelligent account of the onset of his condition. Several years previously he had severe rigors while working in North Queensland, and when I saw him he had a much thickened scrotum and was suffering from toxæmia. A free incision was made under infiltration anæsthesia, and about three drachms of stinking pus was evacuated. I cannot answer for his subsequent history nor the present condition of his blood, as he has left this district.

Of the patients in whom the lymph scrotum was the main source of complaint, in none was there a very great increase in size, but the amount of lymph that exuded when a bleb was punctured was a surprise to me as well as to the patient. I found filariæ in this fluid by day as well as by night in one case. In none was removal necessary, though in one it was suggested and declined.

In fluid collections in the tunica vaginalis of filariated subjects I have met with two varieties, a typical example of each I show. In one we find the typical chylocele, with its milky fluid, which usually contains the worms. In one case (the sample shown to-night) I failed to find them, though they were and still are present in the blood. In the other we find cholesterin in quantity, as the crystals in the fluid. Of the latter class I have had three examples, one of which was shown at a previous meeting of the Society, while two more are shown now.

Of the chyloceles, I have had some interesting examples. In the fluid removed, we find the embryos present in numbers, and I have found less difficulty in keeping them alive than with any others that I have secured. In only one of these patients, a coalminer, was there a high grade of anæmia, and he had worked in bad air for a few months before the examination. In this man, on tapping him with a small instrument, it was necessary to use considerable pressure to start the stream, so in all the later cases a much larger instrument was used and no trouble was experienced.

In one of these chylocele subjects I have had my most interesting filarial experience. When first seen it was evident that he had some valvular heart lesion, for which he can assign no reason. He has been for many years an engine-driver in the railway service. This occupation seems so frequently connected with the occurrence of hydrocele as to suggest some casual relationship. When first seen he was tapped in the usual way, and filariæ were found in the fluid. As the sac refilled rapidly, I suggested a radical operation, and after considerable delay, due to an unfavourable prognosis given by a second medical man, but supported by the advice of Dr. John Thomson, I did a radical excision as rapidly as I could, and the result was a success as regards the hydrocele, though the filariæ remained in the blood as before. He had been assured that a fistula would remain, and as this was my first excision in a filarial subject, I was encouraged to continue in the course that I had adopted. But the most interesting point is in the sequel. About 12 months after this he again called on me to show a tumour of the left spermatic cord, situated at the lower end of the canal, and growing rapidly downwards. Again, at my suggestion, he saw Dr. Thomson, to whom I desire to express my thanks for his encouraging advice on this and on many other occasions. Under chloroform the enlargement was cut down upon, and, after freeing the spermatic vessels as well as was possible, it was removed without sacrificing the testicle. There were several arteries to ligature, but all went well, save for one stitch abscess at the upper end of the incision. The mass removed was shown at one of the meetings of the Society, and has since been mislaid. I believe that the motherhouse of his filariæ was removed, and since then his blood shows no embryos, nor is there any indication that he ever harboured the parasite.

I have done a partial excision of the sac in five of those cases. No fistula has remained, and each patient considers himself cured In Gould's "Yearbook," 1902, I find the statement that in such patients it is necessary to remove the testicle. My experience is at variance with this, and more than justifies conservative treatment.

The two acute cases were tapped, and in future I hope to do an excision. I have not attempted the method of inversion in any of the chylous cases, though in future I feel inclined to do so.

Of the four patients who showed periodic orchitis as the main lesion I show one to-night. This may possibly resolve itself into an abscess, but now the testicle enlarges very much during each pyrexial attack, and its size continues somewhat increased during the intervals. There is excessive tenderness even on touching the skin over the lower pole of the testicle during the attack. The inguinal glands enlarge, as well as the lymph vessels. Each attack is ushered in by a prolonged severe rigor, and the condition lasts as a continued fever, with nightly exacerbations, for a few days, gradually subsiding to occur again at an interval that varies irregularly.

Digitized by Google

All my patients are improved during the winter months, and now in several of them I find only an occasional embryo where two months ago it was usual to find up to 50 in each blood drop. The mother of this patient shown to-night died rather suddenly a few weeks ago. For many years she had elephantiasis of one leg, and when I saw her, a few days prior to her death, she had a peculiarly boggy abdominal tumour in the epigastric and pelvic regions. I had not then seen her son or I should have suspected its filarial origin, and not signed the certificate abdominal malignancy. My request for an examination after death was refused.

I have had no opportunity for such an examination in any of my patients, but I feel that a few such may help to solve the point as to whether we are justified in resorting to more advanced surgical measures in many of these conditions.

Thirteen patients showed varicose lymph vessels in the inguinal and femoral regions. Many of these do not show enlarged glands, except during the periodic feverish attacks. One patient that I show, like many more in the series, has a variety of conditions. He has been a groom, has had all manner of treatment, and is now virtually an invalid. He has not had any extended interval of repose since the condition began six years ago. Each winter, when it is difficult to find the embryos in the peripheral circulation, he suffers from attacks of some bronchial ailment, which may be caused by the access of the worms to the pulmonary capillaries. This man is excessively neurotic, and unless some more efficient treatment can be adopted, he will become not only a burden on the public but also a source of considerable danger. In this patient, when I had repeatedly failed to find the embryos in the blood, a steam bath, followed by free massage, enabled me to get them easily, as in the warmer months. In none of these have I attempted to remove the enlarged vessels, though this has been done with success in India.

In one of the patients, who considers himself cured, I found, during the week, 43 filariæ in one drop of blood examined at 10 p.m. This brings us to another interesting point. Can filariæ be present in the system and cause no suffering to the patient? I have no hesitation in saying yes. Several of my patients assign an injury as the cause of their trouble. They must have had the worms circulating in the system, at the time waiting for some trauma to produce some local sign of their presence.

Another question is, how do they gain entrance into their human host? We know that the mosquito is their intermediate host, and that the culex fatigans, the ordinary house mosquito, is a very efficient host. In the blood of this insect I have found two filariæ, after it had fed on one of those shown to-night. The worm then penetrates the thoracic muscles of its host, increasing to several times its embryonic size, and eventually acquires a position in the proboscis of its host ready to mature in the next victim of the rapacity of the mosquito. We know, from the history of its development, that it may thus gain entrance into its human host. But if this is the usual mode of infection, why is it not more common? One of my patients has been married for six years, and during all that time he has been a victim of the worms; his habits are typically careless, his house has harboured multitudes of the mosquitoes, his circumstances have been far from affluent, yet his wife is free from the infection; his cat, his horse, his dog show no signs of the worms, either by day or by night. Amongst this series of cases household infection has not been positively recognised in any case. It seems to me there must be some other condition requisite for infection. Under the impression that drinking water might supply some clue, I have centrifuged several gallons of water that has come from two tanks that have been frequented by filariated mosquitoes. My examinations have been negative. The absence of family invasion must negative drinking water as a direct source of spreading the disease.

There are many interesting points that I have not touched. The embryo is flattened. In watching its movements for several hours on a slide without a cover-glass I failed to see any sign of a rolling motion. Most of its movements are confined to an area well covered by a one-sixth inch objective, but I have seen many more, especially those taken from chyloceles, move the breadth of three fields in as many seconds when there is no current visible on the slide and no corpuscles to impede its movements.

What becomes of the embryos that we see floating in the blood? In the day time they may seek rest in the deeper circulation, but they have a definite duration of life, and then what becomes of them? May the rigor that ushers in a fresh attack represent their funeral? I have made several chemical and microscopical examinations of the urine and I can find no increase in the usual amount of the sulphates, and nothing to indicate that they leave the system in that way.

As regards the staining of the worms, I have found that the statements in the treatises on this point are a failure. I have tried, and have specimens stained in every way that I

Digitized by Google

satisfactory. The best results I have obtained with thionin, after washing out the hæmoglobin and fixing by slow drying.

As regards the influence of filariasis on the blood, in only one of my patients is there a high grade of anæmia, and other circumstances are sufficient to account for that. I have made many blood counts, but my study here is incomplete. I have found the ordinary variations in the erythrocytes, in at least two, repeatedly over 6,000,000 each c.mm.

To leucocytosis more interest attaches. I have not made differential counts, though I have several slides stained with eosin methylene blue. My counts have varied between 1700 and 12,000. In one of the patients shown to-night I have found increased leucocytosis at the approach of an attack of pyrexia on several occasions. My observations so far are too few to deduce any general conclusion as to the approach of an attack.

In one patient I regularly found several filariæ in each drop of blood taken at 9 p.m. until 7 iv. On this occasion I found but three in 40 slides, but an increased leucocytosis. Next day he was moderately bad.

As regards treatment, the rational method is to kill the parents in their home or remove them if you can ascertain their abode. In one of my cases it seems that I removed them.

I find it is more difficult to meet the embryo in the winter. Does this mean decreased activity due to cold, or is it that they remain in warmer quarters than the peripheral circulation affords? It would be interesting to know the result of residence in a cold climate for such a patient. In one of those shown to-night a steam bath brings the embryo into the peripheral circulation at a time when it shows a tendency to select other quarters.

In many of my slides I have found a very dilute solution of formalin to be fatal to the embryo. I feel inclined to give the drug a trial by intravenous injection, in the strength of 1 in 10,000, using 500 c.c. on alternate days, in the hope that it may prove as fatal to the parents as it seems to be to the offspring. But, after all, prevention must be our ultimate aim, and, with this end in view, the destruction of the mosquito is the main hope of limiting a disease that threatens to become a national curse.

(Read before the Queensland Branch of the British Medical Association.)

The Austin Hospital for Incurables in Melbourne has a wing specially set apart for the treatment of consumption in the incurable stage. This wing contains 40 beds, which are fully occupied all the year round at an outlay for maintenance of £2000 per annum. There are usually about 30 applicants waiting their turn for admission.

NOTES ON FILARIA AND MOSQUITOES.

By Thos. L. Bancroft, M.B. (Edin.), Deception Bay, Queensland.

Of about 350 species of mosquito hitherto described, there are three of especial importance—viz., Culex fatigans (Wiedemann), Anopheles maculipennis (Meigen), and Stegomyia fasciata (Fabricius); two of these have already been introduced into Australia, and have spread to an alarming extent. Fortunately Anopheles maculipennis has not been introduced; this mosquito is not only a filarial host, but the chief factor in the propagation of malarial fevers. These insects, like fleas and lice, stick to the human race throughout the world.

What I have always called "The House Mosquito" is Culex fatigans (synonyms Culex ciliaris; C. Skusii, Giles); it is the chief host for Filaria Bancrofti and F. immitis; this is the brown mosquito, which is such a curse at night in the house, especially in towns.

Stegomyia fasciata is the small black mosquito with silvery markings on the body, which is so annoying in the house during the day; it is the host for the yellow fever parasite. Theobald ("Monograph of the Culicidæ of the World," vol. i., p. 293) states that it is a filarial host, but I cannot find on what authority. Dr. George A. Vincent, of Trinidad, did not find that it was a host, although two other mosquitoes he experimented upon proved to be hosts. (*B.M.J.*, January 25, 1902, p. 190.)

Culex fatigans is strictly nocturnal in habit; breeds in casks of water, cesspit closets, and small collections of water near habitations. It will live a month or two, and will bite every few days during the summer months. When this mosquito bites a filariated subject it abstracts with blood some of the embryo filariæ; a few of these continue to live in the mosquito's body, and in 16 or 17 days have grown to their maximum size, having increased from $\frac{1}{250}$ in. x $\frac{1}{3500}$ in. to $\frac{1}{13}$ in. x $\frac{1}{150}$ in. In this stage they are just visible to the naked eye, and lie in the labium or sheath of the proboscis, awaiting the chance of again entering the human body.

When such a filariated mosquito settles on the human subject, the parasites immediately leave the end of the labium and pass into the skin, and eventually into a lymphatic vessel, where they grow to maturity and live for years.

Filariasis should be a notifiable disease. Filarial subjects should he compelled to sleep under proper mosquito-nets. Everybody can suggest, and no one of them is thoroughly

Digitized by Google

should be encouraged to use mosquito-nets, and the netting should be supplied gratuitously to all who cannot afford to purchase it for themselves. People should be educated in the matter of preventing mosquitoes breeding about their dwellings. A filariated person allowing himself to be bitten by mosquitoes at night is an everlasting source of danger to himself and his neighbours.

Filariated persons who do not sleep under perfect mosquito-nets cannot hope to be ever rid of the parasites, and there is little use in treating such patients. Re-infection must be prevented; tonics and good living are indicated; endeavour to keep your patients alive until the filariæ in their bodies to-day have all died. It is improbable that the life-span of any filaria exceeds five years.

THE RADICAL CURE OF HERNIA IN ELDERLY PEOPLE.

By C. MacLaurin, M.B., C.M. (Edin.), Assistant Surgeon to the Prince Alfred Hospital and the Women's Hospital, Sydney.

In a recent paper I drew attention to the fact that the risk of death from hernia is greater among the elderly poor than any other class of society, and the question was raised whether it might not be worth while to revise the generally accepted opinion that after 50 operation for radical cure is ill-advised. We have now to consider—(*a*) The risk of operation, and (*b*) the likelihood of cure, with reference to people past middle life.

In young people, of course, there is practically no risk in the operation for radical cure of hernia; in old people, while the operation is not serious in itself, yet the attending features of old age may render it so. Thus it is a truism that old people should not be kept in bed longer than possible. They develop hypostatic congestion and bronchitis.

Many elderly people seem to have reached a condition of equilibrium which may continue for many years, but which some cause, perhaps trifling to a young man, may overturn and set them definitely on the downward path. We have all seen how a man may go on for years without looking a day older, until suddenly a domestic sorrow, a slight illness, or a business trouble may age him in a few weeks, and soon afterwards we hear of his death. The true reason of such a man's death is not the pneumonia or the heart failure that actually carried him off; it is a whole series of causes following upon the trifling event which first upset his unstable equilibrium. In an old man every illness is serious.

Again, the average hernia in an old man is larger and contains more adhesions than that in a young one, and the operation on it is proportionately more risky. Thus we see that we need not rush into operation upon every old hernia we come across, even though there may be some risk in leaving it alone.

Contra Indications.—Alcoholism: Alcoholics do not heal well; they may develop *delirium tremens* when kept in bed. *Bronchitis* and *winter* cough when present; but there is no reason why the subject of such a cough should not be operated on in a free interval. It is unwise to keep such people long in bed.

Enlarged prostate, unless it can be cured, by prostatectomy for instance. *Eczema,* or necrosis of skin over hernia, which might prevent aseptic union. *Very great size of the hernia,* which it might be dangerous to reduce, owing to the space which ought to be occupied by the hernial contents being filled up by other matter. Little seems to be known of this rare condition. I have come across two fatal cases[1]: one a man of 45 who died 32 hours after operation, with coughing of blood-stained mucus, but no abdominal symptoms; the other, a man aged 56, who died nine days after operation, with rapid pulse and respiration, but no peritonitis. In each case it is reported that the mesentery was enormously laden with fat; and in one there was a hollow depression underneath the umbilicus, showing the absence of much of the abdominal contents. I have no personal experience of this condition. *Glycosuria* is a contra-indication at any age, perhaps less so in elderly people than in the young. Albuminuria is, of course, also a contra-indication, as, in fact, any serious organic lesion.

Indications.—Severe disabling effect is the only thing which should lead us to operate for non-strangulated hernia in a patient over 50. This may result from—Pain; inability to retain hernia with truss; irreducibility; great size. We have seen that great size in a hernia may be also a contra-indication, but the anomaly will be explained directly. These enormous herniæ in old people are most anxious and perplexing cases. The patient is frequently incapacitated and is never free from pain, even when recumbent. In some cases such herniæ have been supported with a suspensory bag from the shoulders. Sometimes the skin thins, necroses, or even bursts over them, especially in the case of umbilical hernia; the contents may then prolapse. The patients are usually exhausted and miserable, and they may be fat and bad subjects for operation.

Digitized by Google

Before operating upon such cases it is well to improve the patient's general health. Marcy[1] advises six weeks in bed, free purgation and a diet of proteids. He quotes an eighteenth-century French surgeon to show that under such treatment even large herniæ become smaller and often reducible. Bed, however, is not a good place for these fat old people. They become depressed and may suffer from hypostatic congestion of the lungs, causing severe cough, which is the very thing that we wish to avoid. As a rule, the sooner we can get an old person out of bed the better. In my opinion, the correct preliminary treatment for large herniæ is proteid diet and free purgation, with rest in the house so far as possible. The great thing is to reduce the amount of body-fat. A rigid anti-fat diet, however, means a total change in the habits of life, which is a serious thing to advise in old age. Often the fat can be reduced to a certain extent, and then perseverance in the new diet simply causes ill-health and misery.

Methods of Operation.—Inguinal Hernia: Whatever may be the result of simple removal of the sac in young people, there can be no doubt that in the aged it usually fails. The hernia returns, often as soon as the patient gets out of bed.

After a period of disuse Macewen's ingenious operation seems to be returning into favour. It is, however, best suited for cases with strong muscular walls, and has certainly not, in my hands, been particularly successful in flabby old people. The objection that if the wound suppurates the sac may slough is rather inept, because hernial wounds ought not to suppurate, and if they do the operation usually fails anyhow.

Bassini is the most popular method at present, but it has the defect of interference with the spermatic cord, leading occasionally to swelling of testicle and hydrocele. It is strongly recommended by Cheyne and Burghardt for old people.[2]

Kocher's operation has apparently almost gone out of use, even the new method being open to serious objections. In several instances hernia has occurred through the hole made in the abdominal wall for the stump of the sac. In one case I have seen this nearly strangulated. A surgeon in a recent English periodical advised the removal of the testicle and cord with the sac, so that the canal might be thoroughly closed. This form of procedure is not likely to become popular.

Halstead's operation has not supplanted Bassini's, even for old men with lax canals, for whom it was looked on at first with great favour.

Moynihan modifies Bassini by splitting the cord into several portions, and bringing them out at different parts of the suture-line. This must make the interference with the cord still more serious. The two recurrences I have operated on after Bassini were at the lower angle of the wound, and Moynihan's plan seems to be based upon an incorrect appreciation of the usual mode of recurrence after Bassini, and to be not free from danger.

A. M. Phelps uses continuous sutures of fine silver wire for peritoneum, transversalis fascia and muscles. He has had 16 suppurations in 216 cases, but does not think they affect the result. This somewhat high percentage of sepsis seems to show that silver wire is not innocuous.

The question of ligature is still under discussion. Fine silk is commonly used in England, but experience there seems to show that it frequently causes late suppuration, even when its asepsis is beyond question. The presence of a foreign body appears to give an opportunity to stray pus cocci floating in the neighbouring blood. My own experience of silk is small and not favourable. Spun celluloid is a recent invention, which seems to possess both the advantages and disadvantages of silkworm gut.

Catgut is in Sydney, and apparently in America, almost the only suture material now used. Formalised catgut has proved uncertain; it is frequently brittle. The method of preparation used by Mr. Wilson at Prince Alfred Hospital is as follows:—

Wind dry catgut on glass reels, joining ends together. Put in ether from 24-48 hours; then put in $\frac{1}{1000}$ biniodide in spirit solution for seven days, and use direct from spirit. This solution should be boiled and changed every week.

Chromicised gut.—Put dry gut into 1% chromic acid; leave till it becomes deep orange colour; then put into dilute sulphurous acid till it turns green throughout. Wash in sterilised water and put in biniodide as above.

Catgut so prepared has been repeatedly found to be sterile, and is very satisfactory. In my last 54 cases I have not had a single suppuration.

About two years ago I published a method of operation upon hernia which I have since then extensively used and from time to time modified. It is not suitable for young persons with tight canals, but for elderly persons whose muscles are lax it acts very well.

The usual incision is made. The external oblique aponeurosis is incised, exposing the canal in full. The sac within the canal is separated from the surrounding structures and cut across, the lower end being left *in situ*.

Digitized by Google

Any contents are returned, except omentum, which is removed. The sac is then ligatured as high as possible and cut short. The canal is obliterated with two layers of suturing. The first layer joins the edge of the muscle to the edge of Poupart's ligament. The second layer pierces the muscle an inch from the edge and pleats it over the first line of suturing, sewing it to the anterior surface of Poupart. Over all the aponeurosis is united.

The result is a very firm and complete obliteration of the canal. I had the opportunity of examining a patient's inguinal region post-mortem a year after operation and found that it was impossible to put the finger through the canal at all. In 13 cases over 50 there have been two recurrences, both in labourers.

Femoral hernia.—A satisfactory method is to raise a flap from the pectineus muscle large enough to plug the crural canal, and sew it inside the canal to Poupart's ligament by a catcut ligature passed on the end of a transfixion needle. To secure it a flap from the pectineus fascia may be sewn over the ring. This is a troublesome little operation, but seems to answer very well.

Umbilical and ventral hernia will be left for consideration in a further paper.

References.—1. Marcy, Annals Surgery, Jan., 1900. 2. Manual of Surgical Treatment, 1902, vi., 447.

(Read before the New South Wales Branch of the British Medical Association.)

TWO CASES OF EXCISION OF THE RECTUM BY THE METHODS OF KRASKE AND QUENU.

By W. J. Stewart McKay, M.B., M.Ch., B.Sc., Senior Surgeon Lewisham Hospital for Women, Lewisham, Sydney.

The cases that I bring forward this evening would have been classed by Volkmann as too high for removal from the perineum, and too low for removal by cœliotomy.

The first case, a woman of 40 years, much emaciated and suffering great pain, was admitted into the Lewisham Hospital. The growth was discovered about the level of the lower portion of the pouch of Douglas. A preliminary inguinal colotomy was performed, and the rectum was well irrigated for two weeks. The case was then operated on by Kraske's method; the coccyx and lower portion of the sacrum were removed, then the segment of bowel containing the malignant growth, together with an inch of bowel on the proximal side of the growth, and all the bowel on the distal side down to the anus, was removed. The proximal extremity was fixed and a saccral anus formed. This portion of the bowel, unfortunately, became gangrenous and infected the wound, but by placing the patient in a hot bath for some hours daily she recovered, and is now a strong and vigorous woman.

The second case was operated on by the method described by Quénu and Baudet.* I believe that this method is destined to displace the procedure of Kraske.

The patient, a woman aged 38, had a malignant growth situated six inches from the anus. She was emaciated, and suffered the greatest pain after every passage of the bowels.

Dr. Burfitt performed a preliminary colotomy at the Lewisham Hospital for me, and after the bowel had been well irrigated for two weeks with boracic acid the second operation was performed. Dr. Burfitt assisted me greatly.

The patient was placed in the lithotomy position, the rectum was dilated and irrigated; the anus was closed by a purse-string suture of strong silk, the ends being left long so as to be caught by catch-forceps. An incision was made in the median line, beginning close to the vagina, and was then carried round the anus to the coccyx. The peri-rectal tissues were dissected down to the levator ani muscle on all sides. The bowel was pulled by the assistant to one side, and the fat in the ischio-rectal fossa having been cleared away the levator ani was divided on one side, then on the opposite side of the bowel.

The index finger was slipped in between the visceral layer of the pelvic fascia and the levator ani, and the latter was divided anteriorly; the pelvic fascia was next divided, and the rectum was easily separated from the posterior wall of the vagina. As the finger gradually progressed the vagina was pushed off—in the same way as the bladder is in performing vaginal hysterectomy—and the pouch of Douglas was entered without difficulty.

The rectum was then pulled well forward towards the pubes, and was separated from the sacrum, the posterior portion of the levator ani being then divided. After this the tissues on either side of the coccyx were severed and the coccyx removed. The difficult steps of the operation then commenced, for the mass of tissue lying on either side of the bowel above the point of insertion of the levator ani was divided with difficulty. Evidently these tissues contain the branches of the middle hæmorrhoidal arteries, and very considerable hæmorrhage occurred at this stage.

The next step was to divide the meso-rectum. This was done by drawing the bowel to one side, placing a pair of long forceps on the

Digitized by Google

meso-rectum and dividing the peritoneum between the forceps and the bowel. After considerable difficulty the bowel came down sufficiently, and then the peritoneum in the pouch of Douglas was sewn to the bowel and the peritoneal cavity shut off. The external wound was closed by silk-gut sutures. The bowel one inch above the growth was now divided, and the proximal end of the gut fixed to the skin, close to the end of the sacrum, by some chromic gut sutures; the space on either side of the bowel being drained by iodoform gauze.

The patient suffered little from shock. On the third day an anæsthetic was administered, the gauze was withdrawn, and two drainage tubes were inserted. There was a little suppuration, but as the patient was placed in a hot bath every day for an hour, this gave rise to little trouble, and a month after the operation she returned home quite well and strong.

Having performed the operation on the dead body, I can see that we have now an excellent method of not only removing the rectum, but also the uterus, should this be required.

The operation of Quénu presents certain advantages over the operation of Kraske. In the first place only the coccyx need be removed; the sacrum is not touched. The bowel is not opened until the operation is practically completed, consequently the wound is not infected, and the fæcal fistulæ, so common after Kraske's operations, do not occur. By gradually progressing from below up, we have complete control of the hæmorrhage; every vessel that is divided is severed in such a way that we can immediately seize it.

There is one objection to the operation, and that is, the anus and sphincter being removed, the patient must be content with an anus near the groin.

(Read before the New South Wales Branch of the British Medical Association.)

• "L'Extirpation au Rectum Cancereux par la voie Périnéale." *Revue de Gynécologie*, Pozzi, page 847. 1898.

The Transmission of Syphilis made a Penal Offence.—The tribunal of the Seine has just delivered an important judgment. By this judgment the transmission of syphilis by persons knowing themselves to be affected, even though they do not wish to transmit the disease, comes under the category of injury inflicted on another, and gives the victim the right to an indemnity. Already the law has condemned parents whose child infects a nurse with syphilis, but the direct transmission of syphilis through sexual relations considered as a wound for which an indemnity is payable comes under the purview of French law for the first time. The case in question was that of a man suffering from syphilis who had sexual intercourse with a girl, aged 16 years, who contracted the disease from him. She had previously been quite well and a virgin. The Court condemned the man to pay 12,000 francs damages.

THE INJECTION OF PARAFFIN WAX IN FACIAL DEFORMITIES.

By Richard Arthur, M.A., M.D., Assistant Surgeon Ear and Throat Department, Sydney Hospital, Sydney.

GERSUNY's method of the subcutaneous injection of paraffin wax marks a not unimportant advance in æsthetics, if not in surgery. The Aryan race has demanded that its members shall have a nose of a certain degree of prominence and shapeliness, and natural selection has worked loyally to this end. Judge, then, the unhappy lot of those to whom ill-fortune in the shape of disease or accident has brought an organ which lies flat on the face, or the dimensions of which have so shrunk that it is a mere parody of what it should be.

Before such cases the ingenuity of man was powerless. If there were no nose at all, or if it were a disgusting sight from extensive ulceration, the plastic surgeon took the case in hand and constructed a caricature of the organ from what material he found lying about on other parts of the face; but if a whole nose were there, however pitiful, he left it severely alone. But Gersuny's discovery has brought promise of relief to thousands of sufferers who are going through the world labouring under the knowledge that censorious persons are asking, Did they or their parents sin that this thing should come upon them?

Of course I am aware that the method has been prepared and used for many other purposes besides the re-shaping of noses, but this, to my mind, is by far the most important object, especially if there be added to it the elaboration of chins. The chin which is not a chin, where the facial line slopes with scarcely a break from the mouth to the thyroid cartilage is, perhaps, a greater reproach to a face than the distorted nose, and I see no reason why a good lump of wax, cunningly inserted and moulded, should not change this to a Napoleonic cast of features. Let, then, the restoration of the human face to its orthodox and fitting form be the chief rôle of this new discovery.

Coming now to details, the first question is, What is the best kind of paraffin to use? The answer to this question must be determined by the object in view. The harder the paraffin, the higher is its melting point. To lower the melting point, soft paraffin (vaseline) or liquid paraffin (alboline) in varying proportions must be added. To bring the melting point below 110° Fahr., the greater proportion of the mixture must be soft paraffin. I have carefully

Digitized by Google

tested the melting points of a large number of mixtures and have found that to reduce the melting point below 110° at least three-fourths of the mixture must be soft paraffin. Now, the advantages of a low melting point are that the wax does not solidify so quickly in the syringe and that there is not so much reaction set up in the tissues. The paraffin injected at a higher temperature (120° to 135° Fahr.) causes a certain amount of swelling and redness of the skin, which only subsides very slowly. This reaction, however, is also conditioned by the amount of paraffin injected, being greater in proportion to the tension put on the skin. For this reason it is wise to guard against introducing too much at a time.

The objection to the mixtures with the lower melting is that, as they are softer than those which melt at a higher temperature, they do not resist the pressure of the skin as effectively, and, therefore, as good results as regards shapeliness cannot be obtained. It is also possible that the vaseline may be absorbed, and thus shrinking produced.

I have found a mixture of four parts of hard paraffin and one of vaseline, which has a melting point of 118° to 120° F. to be as good as any. Even when the mixture is composed of equal parts of the hard and soft, the melting point is only a degree or two less. A mixture of hard paraffin and spermaceti (equal parts) gives a very hard wax, which melts at about 118° Fahr., but it takes a long time to solidify.

The paraffin is sterilised by exposure to a heat of 300° to 350° Fahr. in an oven for about half an hour. I was afraid that this heat would drive off the more volatile constituents of the paraffin and thus raise the melting point, but re-testing proved that the melting temperature had not been altered.



Before Injection (Fig. 1).



After Injection (Fig. 2).

As regards technique, I am inclined to think that Gersuny's later plan of injecting the wax in a semi-solid state is the wisest. It minimises the danger of the paraffin coming to a final resting place in untoward positions, such as high up on the forehead and in the eyelids. If the needle used be one of fairly large calibre there is not much difficulty in squeezing the paraffin through, if it has not been allowed to solidify before the needle is introduced into the tissues. A syringe, the piston of which could be forced down by a screw action, would aid in this, and would guard against the risk of an undue amount of wax being suddenly injected.

One of the most important points is to guard the tissues into which the wax is not to go. This is not as easy as it might appear. I do not think the fingers of the surgeon or of an

Digitized by Google

assistant are sufficient for this purpose, as a loophole of escape may be left. It is better to make a cast of the nose, either with dental wax or plaster, leaving uncovered the part which is to receive the paraffin. If the cast is firmly pressed down during the injection it will effectually prevent any straying of the paraffin. Strips of sheet lead, held firmly in position, would probably be even better, as the soft parts on the side of the nose could be protected in this way.

Once the paraffin is in it should be moulded into shape, and, what is of more importance, it should be kept by pressure in that shape till it hardens. When the skin on the nose is raised, more or less tension, which, however, is considerable in every case, is put upon it, and this tends to flatten out the still soft wax, making the nose broad, but not much straighter.

As even the hardest wax takes some time to become stiff at the temperature of the air, it is evident it will require longer to do so at the body temperature, and I believe that the paraffin should be firmly pressed on, and kept in position by the fingers for at least a quarter of an hour after injection. If this be done, and there be skin to spare, I do not see why our ambitions should not soar to noses of an aquiline type.

The most promising cases are those in which the nasal bones are intact and in position, and where the skin is not bound to the tissues beneath, and they are also the easiest to deal with. When the paraffin has to be placed high up at the root of the nose, there is much more risk of infiltration of the tissues round the eyes. In the case of which illustrations are given, the result was very satisfactory owing to the nasal bones being present, though somewhat flattened by an accident. (See Fig. 1.) The second photo. (Fig. 2) is, unfortunately, not a true profile, the face being somewhat foreshortened, and it does not give an altogether fair idea of the improvement effected. In this case I took the precaution to establish free nasal respiration by cauterisation and partial removal of the middle turbinals before going on to the injection. I hope to get the nose perfectly straight by another injection at some future date.

In conclusion, let us admonish ourselves—not too much of zeal in this remodelling of the human face; seeking to better, we may mar, not perhaps what is well, but what is infinitely preferable to the catastrophic condition our well-meaning but injudicious efforts may bring about.

CLINICAL AND PATHOLOGICAL NOTES.

A CONTRIBUTION TO OUR KNOWLEDGE OF SNAKEBITE.

Since the idea of obtaining an anti-venomous serum to suit all kinds of snake poison must be abandoned, and as it seems quite impracticable to obtain and preserve all forms of serum, it might be useful if experiments were made in other directions in the hope of arriving at some satisfactory means of treating snakebite.

The method in vogue among the bushmen of Africa has long struck me as one worthy of thorough investigation. It is their practice to give, where possible, to the patient the glands of the identical snake which shall have bitten him. This swallowing of the poison gland is asserted to confer complete immunity from snake poison.

As a contribution to our knowledge in this direction, let me relate an interesting case brought under my notice the other day.

A large black snake was seen sunning himself high up among the tops of growing sugarcane. Pursuit was given by two dogs, one of which, a large St. Bernard, ultimately killed the snake, but in the act of doing so received a fatal bite across the neck, behind the ears. The dog died a quarter of an hour after being bitten. The remains of the snake were hung over a wire fence by the owner of the dogs, to be left for my inspection; but one of his cats in the meantime *eat the head of the snake* and *with no apparent harm.*

If a cat, then, can eat a poisonous snake's head with impunity, perhaps there may be a great truth behind the African bushman's method of treating snakebite, and something might be done by way of putting it to a crucial test.

T. F. Macdonald, M.B., C.M.
Geraldton Hospital, Queensland.

A NOTE ON ALBUMINURIA IN PARTURIENT WOMEN.

One hundred and twenty-four (124) parturient women, taken consecutively in order of admission to the Women's Hospital, were catheterised, early in labour, and the urine tested for albumen. The vestibule was carefully cleansed so as to avoid contamination from vaginal discharges. The specimen was then drawn, a clean catheter being employed which had been kept in antiseptic lotion and rinsed in sterilised water before use.

Digitized by Google

The result is as follows:—In 14 cases (or a little over 11 per cent.), albumen was present in varying quantity, viz.: six cases, a trace; one case, ⅛; one, ¼; one, ½; one, ¼; while four specimens were "solid." Of these 14, only two cases developed eclampsia (14 per cent.), and both of these were in the "solid" group. The other cases had an uneventful course for mother and child, with the single exception of one infant stillborn, and that not in either of the eclamptic cases. (Eclampsia has invariably, in the Women's Hospital cases, been accompanied by albuminuria.)

The series here recorded is small, but seems worth recording in view of the widely varying statements of foreign obstetricians. Thus, at the Johns Hopkins Hospital, Little* examined 1000 pregnant women (parturient, I presume, is meant), finding "traces" in 50 per cent., and considerable quantities with tube casts in 7·3 per cent. But his specimens not having been taken by catheter are scarcely reliable. German authorities, with series of about 100 cases, publish very discrepant statements as to albumen in the parturient subject (40 to 16 per cent.); while Pinard (French) in 1249 parturients found 6 per cent.† How these specimens were obtained I cannot state.

A. Watson Munro, M.D., F.R.C.S. (Edin.),
Hon. Surgeon, Women's Hospital, Sydney.

*Whitridge Williams's "Obstetrics," 1903. †Gould's "Year Book," 1902.

REVIEWS AND NOTICES OF BOOKS.

A Manual of Medicine. Edited by W. H. Allchin, M.D. (Lond.), F.R.C.P., F.R.S. (Edin.), Senior Physician and Lecturer on Clinical Medicine, Westminster Hospital, etc. Vol. IV. Diseases of the Respiratory and of the Circulatory Systems. London: Macmillan and Co., Ltd. 1902.

The contributors to this volume of Dr. Allchin's manual are Dr. J. Mitchell Bruce, Dr. F. De Haviland Hall, Dr. Leonard Hill, Dr. Hector Mackenzie, Dr. Lewis Smith, and the editor—names which are a sufficient guarantee that the work is well done. Some of it, however, might well have been omitted, for instance, the sections descriptive of the anatomy and physiology of the respiratory and circulatory systems, which contain information to be found in any modern work on anatomy and physiology, and which only serve to swell the size of the volume. The same objection cannot be taken to the chapters on morbid anatomy and pathology which precede the description of each group of diseases; indeed, no work on medicine is complete without a consideration of the pathology of the diseases of which it treats. The book contains as many as 32 good illustrations, chiefly of pathological specimens, and two coloured plates, one being a diagramatic representation of the position of the thoracic viscera, and the other a schema of the circulation. The treatment is quite up to date. We may particularly mention Dr. Mitchell Bruce's description of the principles of treatment in disease of the heart, an epitome of his remarks on this subject in his well-known work on "The Principles of Treatment." The open-air treatment of consumption is briefly but well described, and so recently introduced a drug as thiocal is mentioned. A fifth volume to complete the work is promised. We have no doubt that the student preparing for his final examination, and the practitioner who is unable to afford the more costly and comprehensive "system" of Professor Allbutt, will appreciate this manual, for which we predict a large circulation.

A fairly complete index is attached to the volume. We would recommend the editor to include a full general index in the concluding volume. P.S.J.

Manual of Bacteriology.—By Muir and Ritchie. Third edition, 1902. Edinburgh and London: Young J. Pentland. Sydney: Angus & Robertson. Price, 12s 6d.

No better proof of the popularity of this work can be afforded than the fact that in a comparatively short time it has reached its third edition. In this new edition the whole matter of the book has been revised, and a considerable amount of new matter added without increasing the bulk of the volume. As a text-book on bacteriology, or, to be more accurate, as a work on pathogenic bacteria, it is second to none in the English language. In this edition a new chapter has been added upon the subject of bacteria in air, soil and water. The account of tuberculosis is a particularly good one. The authors are entirely opposed to the views of Koch on the subject of the non-identity of the bacilli of bovine and human tuberculosis. They express the view that in all probability the bacilli of avian, bovine and human tuberculosis are one and the same, but in each instance modified somewhat by the tissues of the host in which the bacilli are found. They question, also, the value of Koch's tuberculin (both old and new) as a therapeutic agent, and regard the old tuberculin as of value only as a diagnostic agent in the case of cattle.

The chapters on immunity and on malaria are especially good, and will be read with great satisfaction by those interested in these subjects.

The first 115 pages of the book are devoted to technique, and the various bacteriological methods are described in a particularly lucid manner. The illustrations are very good, and, being for the most part from actual photographs, are most realistic. The text and general get-up of the work leave nothing to be desired.

As the subject is one which is yearly making vast strides, it is to be hoped that the authors will continue to issue new editions of their work from time to time. The book can be strongly recommended either to students or to practitioners who desire to keep themselves well posted in the latest advances of this interesting branch of science. S.J.

Elementary Text-book of Zoology. By A. T. Masterman, M.A., B.Sc. Edinburgh: E. and S. Livingstone. Price 12s net.

Designed with a view to meet the wants of medical students preparing for the examinations in Zoology in the Scottish Universities, the present volume of 600 odd pages seems well adapted to its purpose. It is clearly and on the whole accurately written, and the illustrations are numerous and useful, if not always of high artistic merit. In a future edition the statement that monotremes and marsupials possess a corpus callosum should be corrected, and further reference might very well be made to those animal forms of special interest to students of medicine. J.P.H.

Digitized by Google

THE STUDY OF THE PULSE. By J. Mackenzie, M.D. (Edin.), Burnley. Edinburgh and London: Young J. Pentland. 1902. Sydney: Angus & Robertson. Price, 21s.

We have seldom read a more useful, thoroughly practical, and at the same time scientific work than this volume from the pen of Dr. Mackenzie, who has been for many years a busy general practitioner in Lancashire. We think this adds considerably to the value of the work, for we have in these pages the results of careful observations made on patients who have been under the author's eye for many years, and whose subsequent histories he has been enabled to follow out. He tells us that he originally entered upon the study of the circulation in order to ascertain the changes in the maternal circulation during pregnancy. Finding pulse irregularity a very frequent symptom in pregnancy, he proceeded to investigate the clinical significance of pulse irregularity in general, and so was led to make extensive use of the sphygmograph; hence the volume abounds with evidences of the very careful and extensive use he has made of this instrument.

The work is divided into three parts. Part I deals with the irregular pulse and movements of the heart, and the chapters in this part fairly bristle with practical points, careful observations and suggestive clinical histories. Part II deals with pulsation in the veins and liver. These chapters deal with the various conditions giving rise to the venous pulse, the cause of pulsation in the liver and the clinical significance of this pulsation. In Part III he discusses venous and liver pulsation in the irregular action of the heart. The whole work is illustrated with numerous sphygmograms, which are fully explained by clinical histories of the patients from whom the tracings have been made. We strongly recommend this work to all medical practitioners, and we would express our thanks to Dr. Mackenzie for his energy and zeal in giving us the results of his life-work in this particular department. G.E.R.

SAUNDERS' MEDICAL HAND-ATLASES. ATLAS AND EPITOME OF ABDOMINAL HERNIAS. By Privatdocent Dr. Georg Sultan, of Gottingen. Edited, with additions, by William B. Coley, M.D., Clinical Lecturer on Surgery, Columbia University. With 119 illustrations. Philadelphia and London: W. B. Saunders & Co., 1902. Melbourne: Jas. Little. Cloth, 15s.

This new addition to Saunders' series of Medical Hand-Atlases covers one of the most important subjects in the entire domain of medical teaching, since these hernias are not only exceedingly common, but the frequent occurrence of strangulation demands energetic surgical intervention. While the well-known work of Macready will always remain a classic, it has never made any claims to deal with the operative side of the subject, and this is a side that, during the last decade, has been steadily growing in importance, until now it is absolutely essential to have a book treating of the surgical aspect of the subject. This present atlas does this to an admirable degree, and will prove of very great value to the general surgeon and practitioner. The illustrations are not only very numerous, but they excel, in the accuracy of the portrayal of the conditions represented, those of any other work upon abdominal hernias with which we are familiar. Indeed, like all the other numbers of this excellent series, the work is a worthy exponent of our present knowledge of the subject.

THE MEDICAL ANNUAL: A Yearbook of Treatment and Practitioners' Index. 1903. Price 7s 6d net. Bristol: John Wright & Co.

This useful publication has now reached the twenty-first year of publication, and the present issue fully maintains the high standard attained in previous years. Among special features may be mentioned a good illustrated article on "The X Rays: High Frequency High Potential Currents, and Light Treatment"; a short general review of medical and surgical progress for 1902; a useful review of our present knowledge of the etiology and treatment of inoperable cancer. The work includes, as in former years, a review of the progress of sanitary science by Dr. Priestley, Medical Officer of Health for the borough of Lambeth, London; also a chapter on legal decisions affecting the medical man and public health. We can strongly recommend this book as a mine of valuable information for the practitioner in all departments of medicine and surgery.
G.E.R.

AN AMERICAN TEXT-BOOK OF PATHOLOGY. By Ludwig Hektoen, M.D., and David Riesman, M.D. Philadelphia and London: W. B. Saunders & Co. Melbourne: James Little. Price, 35s.

This is a voluminous and unduly bulky volume, consisting of articles by various American authors, and edited by Professors Hektoen and Riesman. Though a volume of large dimensions, yet it is by no means a complete *resumé* of the whole field of modern pathology. As is usual in all such composite works, there is a good deal of overlapping and needless repetition. For instance, a full description of the hypernephromata is found in both the sections relating to the adrenals and to that of the kidneys. In the same way an account of the syncytioma is to be found both in the article on tumours and again in that describing the diseases of the kidneys. The introductory chapter includes such subjects as the methods of pathological study, environment, heredity, immunity, etc., and is written in a style both clear and concise. The subject of "Immunity" is dealt with in a manner too brief to harmonise with its daily increasing importance. An account of "The General Morbid Processes," by Professor Hektoen, is exceedingly good, and at once proves its author to have a thorough grasp of the subject. The pathogenic micro-parasites are dealt with in too short a manner; the descriptions of some of the organisms are by no means sufficiently clear. The article on "The Blood and the Blood-forming Glands," by Cabot, is decidedly good, as is also that on "Diseases of the Urinary Organs," by Professor Riesman. The chapters on the "Pathology of the Nervous System and the Ductless Gland" may also be very favourably mentioned. The rest of the articles are by no means of equal merit, some being good, while others are decidedly indifferent. One of the best features of the work is the profusion of illustrations; the figures are almost without exception most realistic and true to nature. One of the worst features of the book is its unwieldy size; it would, in our opinion, have been wiser to send it forth in two instead of one volume. S.J.

Charitable Donations and Bequests.—At the last meeting of the Board of Directors of the Sydney Hospital a notification was received from the Union Bank that the sum of £250 had been credited to the Hospital, representing a legacy from the late James Orr. At the meeting of the Board of Management of the Adelaide Children's Hospital a gift of 300 guineas for a permanent cot endowment by Mr. Joseph Fisher was acknowledged with thanks. It was agreed that Mr. Fisher's name be placed in the list of life governors.

Digitized by Google

THE AUSTRALASIAN
MEDICAL GAZETTE.

SYDNEY, 20TH JUNE, 1903.

MEDICAL PRACTICE IN MODERN DAYS.

A GLANCE at the conditions of practice 50 years ago with those of modern days shows how greatly theory and practice have changed within that period, and we may say that the majority of the changes which have come over both medical and surgical practice have been due to the development of the science of Bacteriology. While our forefathers were keenly observant and knew that certain diseases were "infectious" or "contagious," they were ignorant of the actual *materies morbi*, and the means adopted to prevent the spread of diseases of this nature were correspondingly defective. The bacteriologists have taught us the life history, modes of growth, etc., of many of the organisms associated with specific diseases, and we are by degrees learning how to prevent as well as to cure these morbid conditions.

Not only, however, in the way of prevention and cure has bacteriology done such good service, but in the field of diagnosis we owe much in modern days to this science. The early recognition of diphtheria by examination of cultures from the throat in doubtful cases is a matter of vital importance, and nowadays we should regard a practitioner who neglected to adopt this method of early diagnosis as failing in his duty to his patient. Other illustrations of this same character are the routine examination of the sputum in cases of disease of the lungs of doubtful nature for the presence of the tubercle bacillus, and the examination of the blood in cases of suspected enteric fever for the Widal reaction. These are examples of clinical methods employed in the diagnosis of disease which are quite modern in their development, and which must be adopted by the practitioner in the country as well as in the town if the best results are to be obtained in practice.

A still more recent clinical method, which, however, has hardly yet passed the experimental stage, is the application of the results obtained by MOTT and HALLIBURTON in their investigations on the chemistry of nerve degeneration. They have found that where there is active degeneration of nerve tissue in progress the presence of choline in the blood and cerebro-spinal fluid can be determined. Choline is normally present in the blood in small quantities, but it is present in much larger amount in cases of active destruction of. nervous tissue; hence the detection of this substance in the blood drawn from a vein in a doubtful case may be of service in diagnosis. It is as yet too early to speak confidently of the value of this method, but MOTT has already used it in several cases with satisfactory results.

We thus see how rapidly the knowledge obtained in the laboratory by experimental research is being adapted to the clinical conditions, and is being employed practically in the diagnosis of disease, and the field of knowledge and practice is becoming wider every day. But the adoption of these clinical methods should not supersede the careful examination of patients by the older methods which have served us in such good stead; and if modern methods of diagnosis are adopted to the exclusion of accurate observation of physical signs and symptoms, the practitioner will fall into many an error of prognosis and treatment. Rather these newer methods should be used as valuable adjuncts which no well-informed practitioner in these days can afford to neglect.

THE ETIOLOGY OF GENERAL PARALYSIS OF THE INSANE.

GENERAL paralysis of the insane is a disease which has excited the keenest interest of pathologists and alienists for many years, and

Digitized by Google

while the pathological lesions are well recognised, there exist diverse opinions upon the actual cause at work in producing these lesions. Some alienists and pathologists, particularly those of the London school, have argued so strongly in favour of syphilis being *the* cause of the disease that they have laid down the dictum, "No syphilis, no general paralysis." They regard the disease as a para-syphilitic manifestation, the lesion being produced by the action of the toxin, much the same way as tabes is considered to be a para-syphilitic disease. But as there are undoubted cases of general paralysis in which no history and no suspicion of syphilis can be entertained, it must be admitted that the disease may be produced in some cases by some causative agent other than a para-syphilitic toxin. The Scotch school of alienists, led by FORD ROBERTSON and others, have not been so emphatic upon the necessity of antecedent syphilis for the development of general paralysis.

In the April number of the *Review of Neurology and Psychiatry* there are some reliminary notes on some work done by FORD ROBERTSON, SHENNAN and others, which is highly suggestive. These observers regard syphilis as only one of the predisposing causes which, along with alcohol, lead, etc., plays the part of altering the natural immunity to auto-intoxication. They regard general paralysis of the insane as a toxæmia of gastro-intestinal origin. Having failed to obtain any evidence of the existence of bacteria in the blood of general paralytics, they made cultures from the wall of various parts of the alimentary tract, from the gastro-intestinal contents, blood, and various internal organs. The results of histological and bacteriological examinations have led these observers to two outstanding facts. First, that there is evidence that in general paralysis not only the alimentary canal but also the respiratory tract is the seat of origin of a severe toxic infection; and secondly, that whilst the causal agents of this toxic infection from these regions are represented by various bacterial forms, there is one micro-organism which appears to have a special significance. This organism resembles the KLEBS-LOEFFLER, but it rapidly produces acid in glucose broth, and is therefore not HOFMANN'S bacillus. Its special significance lies in the fact that it is seemingly constantly present in enormous numbers, and frequently takes part in a terminal general invasion. It can only rarely be found in the alimentary canal of patients dead of other diseases.

Some remarkable results have been obtained by SHENNAN after feeding rats for several weeks on bread mixed with unsterilised broth cultures of this organism. Microscopic examination of the brain shows severe degeneration of the large proportion of the cortical nerve cells, early acute periarteritis, proliferation of the neuroglia, especially in the first layer of the cortex, proliferation of mesoglia cells, and infiltration of the pia-arachnoid.

They conclude that whatever may ultimately be established as to the relation of this organism to the disease, the results so far obtained show that when introduced by the alimentary tract in the form of broth cultures, certain morbid changes in the central nervous system are set up, which, when once established, may go on progressively till death results, even though feeding with the cultures is stopped; and secondly, that the associated changes in the central nervous system have a distinct resemblance to those which occur in general paralysis of the insane. These results are sufficiently noteworthy to attract a considerable amount of attention, and we shall look forward to the publication in full of the experiments of these observers, which are so highly suggestive.

THE MONTH.

Child Study.

WE are glad to note that the subject of child study is attracting an increasing amount of attention nowadays. At the last monthly meeting of the New South Wales Child Study Association an address was given by Dr.

Digitized by Google

Chisholm Ross. He said that the vast majority of mankind never realised the grave responsibilities involved in the duty of preparing children for life's conflict. There were happily many enlightened minds in all civilised lands now giving earnest attention to the study of children and the questions involved in their upbringing. He pointed out that a healthy active life, with plenty of outdoor exercise, was necessary for both boys and girls.

Inebriety in New South Wales.

A Return recently prepared of the persons of both sexes who have been convicted for drunkenness three or four times at the city and suburban police courts during the present year show that the females are nearly as numerous as the males. The large majority of cases come from the Central and Water Police Courts. The total numbers are: males, 577; females, 497. A penitentiary to which women addicted to this vice are to be sent is now in course of construction at Long Bay. It is proposed to adopt special methods at this place, with the object of recovering these women from the degrading habit into which they have fallen. Another penitentiary is being built on Milson's Island, Hawkesbury River, specially designed for men. These retreats are being provided for in terms of the Inebriates Act, passed a couple of seasons ago.

The Sanatorium Treatment of Pulmonary Tuberculosis.

The last report received from the resident physician at the Wentworth Falls Sanatorium, N.S.W. (Dr. McIntyre Sinclair) showed that during the month one case had been discharged with the disease totally arrested, and that all the patients were making satisfactory progress. The matron's report from Thirlmere showed that there were 43 patients in the home. During the month nine had been admitted and five discharged, while two had died (one 12 days after admission). Although there were some failing cases, the majority of the patients were progressing favourably.

According to latest advices the consumptive patients, about six in number, who have been provided for by the Public Health Department at Amherst, near Talbot, Victoria, are progressing favourably. Dr. Gresswell says that the patients, who have been at Amherst about a fortnight, are getting on very well.

A British Scientific Party for the Pacific Islands.

A British scientific party is being equipped in England to visit New Guinea and some of the Pacific islands. The expedition will be under the leadership of Major W. Cooke Daniels, and the principal object will be ethnographical, but it is hoped that a considerable amount of pathological and other more general scientific work will be carried on. Dr. E. G. Seligmann is the representative of the Cancer Research Commission, and he has been specially instructed to collect information on the prevalence of malignant tumours in New Guinea and the neighbouring islands. A yacht for the use of the expedition will arrive in Sydney in August to embark the members of the party. The trip will probably occupy from 12 to 15 months.

An Infectious Diseases Hospital for Hobart.

Some time ago Parliament voted a sum of £5000 for the erection of an Infectious Diseases Hospital at Hobart. The present Chief Secretary thinks that the expenditure of the whole or a portion of this sum may be avoided by utilising the buildings at New Town Charitable Institution now used as an Infectious Diseases Hospital, and he has appointed a board to inquire into and report upon the whole subject. The board consists of Drs. Wolfhagen, G. Sprott (Health Officer for Hobart), and Lines (Senior House Surgeon at the Hobart General Hospital), and Mr. E. H. Wilkinson (Engineer to the Metropolitan Drainage Board). Dr. Wolfhagen is the chairman.

Clinical Teaching in Melbourne.

At a recent meeting of the Melbourne University Commission, Mr. F. R. Godfrey, president of the Melbourne Hospital Committee, said "the clinical teaching done at the hospital was better now than it was some years ago; but there was still room for improvements in the methods. The hospital management should have some authority in respect to this teaching, and the University should have a voice in the appointment of the teachers. Almost every hospital in the world charged fees for the privileges allowed to students. It was desirable to strengthen the relationship between the University and the hospital." We note with much pleasure the recent appointments of Drs. R. R. Stawell and J. F. Wilkinson on the staff of the Melbourne Hospital. These appointments will immensely strengthen the teaching of clinical medicine in Melbourne.

Insanitary Country Hotels.

A deputation representing the Commercial Travellers' Association of New South Wales has waited upon the State Treasurer with a view to having provision made in the new

Digitized by Google

Liquor Bill for the better sanitary condition of country hotels. Mr. Waddell said that whilst the Government did not want to put the hotelkeepers to unnecessary expense, the matter of health overshadowed everything else, and the Government was determined to have the laws of health safeguarded. Under the new bill rigid precautions would be taken to compel every hotelkeeper to have the back part of his premises kept in thorough sanitary order. Another regulation would also insist on female accommodation, to be absolutely private, being provided. He would give the subject of proper bedroom accommodation his attention. Stricter supervision would also be enforced in connection with the cleanliness of bars.

New South Wales Hospital Saturday Fund.

The directors of the Hospital Saturday Fund have this year decided upon a new method of distributing the proceeds of the annual collection among the various institutions. Mr. Dorman, the organiser of the fund, stated that the board mainly distributed the money according to the beds occupied and not for those available; but other matters had to be taken into consideration, such as local conditions, whether a hospital was used for general purposes or not, and the system of administration. Some of the institutions had voluntary nursing staffs, and it would be manifestly unfair to treat them on the same basis as others differently situated. The plan which the board had now decided on for future distribution was the outcome of mature deliberation, as well as of correspondence with the organisers of similar movements in various parts of the world.

The Fight against Tuberculosis in South Australia.

The Adelaide City Council has decided to contribute £150 towards the movement to establish a consumptive hospital. Councillor Baker moved—"That the Council agree to the following resolution carried at the conference of the Local Boards of Health for the control of consumption, as follows:—'That immediate steps be taken to establish sanatoria and isolation accommodation for patients unable to pay anything; that metropolitan and country committees be appointed to consider the various schemes suggested, and to recommend such action as will best suit their districts; and that each committee report to a meeting of its own delegates one month hence.' That the Council also agree to contribute an amount not exceeding £150 per annum, provided the other metropolitan Boards of Health agree to contribute their proportion." The mover said the idea was to build a new wing at Kalyra, and to send curable cases thither. Dr. Angas Johnson said the item was only a small one, and it was desired to make a start, otherwise the project would never reach a practical stage. The Government would be asked to take over the incurable cases, because if those were sent to a home like Kalyra reinfection would probably result. The proposition was unanimously agreed to.

A Septic Ward at the Women's Hospital, Melbourne.

Over six months ago the Women's Christian Temperance Union suggested to the Women's Hospital committee that they should make provision for the admission of septic cases at the hospital. They were informed that there were no funds available for such a purpose. The Union again wrote informing the committee that if they would agree to the admission of septic cases they (the Union) would provide the necessary funds for the erection of a septic ward. The matter was again discussed in committee, when it was decided to refer the question to the hon. staff. The hon. staff agreed to the proposal, viz., to admit septic cases provided a properly equipped ward with nurses' quarters near was erected at the north-east end of the grounds with separate entrance. Plans were prepared by Mr. Koch, honorary architect to the institution. It is proposed to utilise the present septic ward by additions to it.

The Infectious Diseases Hospital in Melbourne.

The urgent necessity for opening of the Infectious Diseases Hospital was pointed out once again at a recent meeting of the committee of management of the Melbourne Hospital, when the medical superintendent, Dr. Amess, stated that the tents, where the only accommodation for infectious cases existed, were much overtaxed, and that he was continually placed in the position of having to refuse admission to cases. It was impossible to take them, for every bed was filled and every corner where it was possible to place a stretcher was occupied. A large proportion of the infectious cases are children, and the diphtheria compartment contains only five cots. In the course of a year no fewer than 300 patients pass through these five beds, and at times each cot is occupied by two and often three children. As the Children's Hospital does not take infectious cases, the Melbourne Hospital is the only one where an effort is made to cope with infectious maladies among children.

Digitized by Google

BRITISH MEDICAL ASSOCIATION NEWS.

PROCEEDINGS OF AUSTRALASIAN BRANCHES.

New South Wales.

THE regular monthly meeting of the Branch was held at the Royal Society's Room on Friday, 29th May, 1903, Dr. Brady (president) in the chair. There were 36 members present.

The PRESIDENT announced the election of the following new members:—Dr. M. Sinclair (Wentworth Falls), Dr. H. C. Patrick (Taree), Dr. F. W. Webb (Croydon, Q.), Dr. Harwood (Adamstown), Dr. Cortis R. Hodgson (Sydney), Dr. W. H. Horton (Mudgee), and, as nominated for election—Dr. H. W. J. Marks (Sydney) and Dr. E. Feilchenfeld (Hay).

Dr. HINDER (for Dr. Chas. MacLaurin) read a paper on "The Radical Cure of Hernia in Elderly People." (See page 252.)

Dr. HANKINS read some notes on a case of Cerebellar Abscess of Otitic Origin, and exhibited the specimen.

Dr. HANKINS, in reply to a question, explained that what had been described as pus flowing from the child's nose was really, in his opinion, not pus, but rejected liquid food which had become infected by the various cocci. The ophthalmoscopic examination was made by a senior resident medical officer of the hospital.

Dr. PHIPPS and Dr. BRADY read papers on the same subject. (See pages 245 and 247.)

Dr. SINCLAIR GILLIES said he had seen both Dr. Phipps' and Dr. Hankins' patients during life. In Dr. Phipps' patient the symptoms present when he saw him were slow pulse, subnormal temperature, headache on movement, and the history of chronic ear discharge. These warranted the diagnosis of cerebral abscess, but unfortunately the patient's parents were positive, even under cross-examination, that the patient had all his life had a slow pulse. He therefore advised waiting and placing the patient under trained observation for a few days. In Dr. Hankins' case, when seen on admission, there was almost complete coma, much retraction and rigidity of the neck, herpes round the lips, pulse of 110, and a history of sudden onset with convulsions three days before; there was also an offensive ear. Diagnosis being between cerebral abscess, meningitis, or both, lumbar puncture was done at once to clear up the diagnosis of meningitis. No organisms were found, but the child improved rapidly, and in three days' time was sitting up apparently convalescent. It subsequently relapsed and an abscess was found. He advocated lumbar puncture in doubtful cases, as the presence of septic organisms in the cerebro-spinal fluid showed that the process had extended widely and contraindicated operation, which in such cases would be useless. The cessation of respiration under chloroform in one case after intracranial pressure had been disturbed by tapping and in the other before the skull had been opened was of great interest, and had not been yet adequately explained. He mentioned a case where artificial respiration had been kept up for six hours and then given up, a cerebellar abscess being found post mortem. Absence of optic neuritis was frequent in such cases and of little value diagnostically.

Dr. CHISHOLM recollected having been called in to operate on a similar case some eight or ten years ago, and the diagnosis was cerebral abscess. On its being decided to operate, the child being brought into the room and laid on the table ceased to breathe. He and his colleagues on the occasion had not proceeded with the operation and the child died. He recognised the difficulty in operations of the kind in obtaining efficient drainage; the small tube was apt to get compressed and the larger rubber tube was inconvenient. Might not a silver or tube of some other metal, with a flange like a tracheotomy tube, be employed with advantage?

Dr. GORDON CRAIG suggested that the absence of optic neuritis in cerebellar abscess might be due to the fact that the pathological condition being in close proximity to the occipital lobes would cause a neuritis in the central neurone first and not in the distal, as occurred in comparatively slow-growing cerebral tumours.

Dr. RUSSELL NOLAN said optic neuritis was not a constant sign in brain abscess, not being present, Macewen says, in cases which run a very rapid course, nor where the abscess is small and the surrounding inflammatory action is slight. The peculiar mechanical yawning, well seen in Dr. Hankins' case, was a distinctive symptom, according to Macewen.

Dr. MILLS considered that the symptoms pointed conclusively to cerebral abscess—blindness, suppuration from the ear, headache, convulsions. There remained the question, Why had not the fundus been properly examined? He sympathised with Dr. Hankins inasmuch as he had three abscesses to contend with; and Dr. Phipps was to be congratulated on the successful issue of his case.

Dr. PHIPPS having replied,

The PRESIDENT said, while agreeing with Dr. Nolan that optic neuritis is not a constant sign in cerebellar abscess, still it is frequently present and ought to be sought for when possible, as if present it strengthens the evidence in favour of abscess. In the case he had operated on the opening had been made at a low point so that the drainage had been satisfactorily accomplished by gravitation.

Dr. MACKAY exhibited a skiagraph showing fracture of the femur before and after wiring, also diagrams showing the steps of the operation of excision of the rectum by Kraske's and Quenu's methods, and read notes on two cases of this nature. (See page 254.)

Dr. BARRINGTON had used Quenu's method in excision of the rectum, in which, finding the posterior vaginal wall involved by the disease, he removed it with the bowel. He found the method efficient and the shock not pronounced and the after result so far satisfactory, the patient having gained weight and colour. The gaping wound behind the rectum he had tried to obliterate with buried sutures, but the posterior part of the bowel having sloughed, infection, with troublesome suppuration, occurred. In this case a plastic operation on the vagina was easily carried out in a few moments.

Dr. HINDER considered that the operation could not be regarded as entirely satisfactory, inasmuch as the glands in the neighbourhood could not be examined or removed if affected. He favoured the operation by the combined suprapubic route in the Trendelenburg position and the perineal route. This gave the best opportunity, at all events for complete removal.

Dr. MAITLAND said that the operations in vogue for the excision of the rectum were not satisfactory in that the area of glandular infection was not removed, and in this he agreed with Dr. Hinder. Quenu's operation, which he had done in his last case in which the growth had to be removed from the prostate and bladder, was wanting in this respect, and he felt that it would be more scientific to adopt an abdominal plus a perineal route, by the abdominal route dealing with the glandular area and doing a colotomy, then removing the growth by the perineal route.

Digitized by Google

Dr. McKay said, in reply, that the operations suggested by Dr. Hinder and Maitland were, of course, theoretically excellent but practically could seldom be carried out, as patients with cancer of the rectum were usually not good subjects for such extensive operations. The most they could do was to remove the growth and give the patient two or three years more life. Judging from the results obtained by removing the glands in breast cases, he felt convinced that malignant disease of any part of the body was hardly ever curable. He was, therefore, not inclined to add to the severity of the operations that he had described by hunting after glands in the pelvis.

Council Meeting.

The Council met at the Association Rooms on Friday, 5th June, 1903. Present: Drs. Brady, Crago, Rennie, Beeston, Hinder, Newmarch, Hankins, Worrall, Pockley, Abbott, Foreman.

The minutes of the previous meeting were read and confirmed.

Apologies for non-attendance were received from Drs. Fiaschi and Dick.

New member elected:—Dr. H. W. J. Marks, Sydney.

Resolved—"That the action of the Council deciding that the Phœnix Mutual Provident Society was prejudicial to the interests of the medical profession be reaffirmed." Carried.

Resolved—"That the secretary to the North Sydney Dispensary be informed that the minimum fee for lodges in the North Sydney district enforced by the local association was 20s per member, and £2 2s for midwifery cases; also that the raising of the fees will not remove the disabilities of the present medical officers."

A letter was read from the secretary of the Australian Ambulance Association asking for the rescission of the resolution prohibiting members of this Branch from participating in the work of the Australian Ambulance Association.

The hon. secretary to reply asking for copies of the last report and balance-sheet.

A letter from a member was read *re* medical witnesses' fees, also a letter from the Under-Secretary of Justice on the same subject.

Resolved—"That the hon. secretary be asked to wait upon the Hon. the Attorney-General with a view to some alteration in the regulations."

Letter from the hon. sec. Northern Suburbs Medical Association asking that the question of remuneration for medical attendance on boarded-out State children be inquired into.

West Australia.

An ordinary general meeting was held on April 22nd at the Perth Public Hospital. There were present: Dr. Astles (chairman), 14 members, and two visitors, Drs. Leschen and Teague.

Dr. Saw showed a case in which he had operated for hydatid situated below and behind the urinary bladder. The operation was done through the bladder. Recovery without fistula.

Dr. Saw also showed a case of perforated gastric ulcer, which had been treated by laparotomy and suturing of hole in stomach. Recovery was complete, and the patient had now no untoward symptoms. She looked robust and healthy.

Dr. Newton showed a case of sarcoma of the parotid gland, which had been operated upon. Man, aged 41 years, noticed two small lumps in gland eight years ago. After a blow, seven months ago, they increased in size, and fused into one. The growth was the size of a cocoanut. It extended under the ramus of jaw and over the masseter muscle. Skin purple, and adherent over a considerable area. A slightly nodulated growth was removed after tying left common carotid. Two-thirds of sterno-mastoid and many other muscles and facial nerve were removed, along with tumour and involved skin. The wound was closed, excepting in the upper part, where skin could not be approximated. A microscopic examination showed the growth to be a small round-celled sarcoma.

Dr. Blackburne read a paper on "The Notification of Infectious and Contagious Diseases," which showed conclusively, *inter alia*, that a great number of cases which occurred were never reported.

An ordinary general meeting was held on May 20th at the Perth Public Hospital. There were present Drs. Astles (chairman) and 10 members.

Dr. Newton read some further notes on the case of sarcoma of the parotid which he had shown at last meeting. Some nodules had formed beneath the clavicle and in the sterno-mastoid; they were removed by operation. Dr. Newton also showed a case of enlarged prostate treated by vasectomy. A man, aged 67 years, urinary trouble four years; stream been gradually losing force; frequency of micturition; five attacks of retention in last two years; one attack of profuse hæmaturia; residual urine, 2 oz.; prostate evenly enlarged. Double vasectomy done; eight months after operation general health and urinary system were much improved; passes water without trouble about four times a day, and has no need to rise at night. It is now 18 months since operation; he can do more work and with greater comfort.

The Secretary read a letter from the General Secretary of the British Medical Association, in which it was pointed out "that the Branch by-laws should now be amended, so that the subscription of £1 5s to the Association is included, making the total annual subscription to the Branch £2 6s, instead of £2 2s as hitherto, £1 1s of which should be sent to the B.M.A. on behalf of each member."

The Treasurer submitted a report, which showed that the Branch funds stood to credit balance of over £100.

Drs. H. A. Leschen and H. O. Teague were elected members of this Branch.

Dr. T. L. Anderson read an interesting and instructive paper on "A Clinical Report of the Outbreak of Bubonic Plague in Perth (1901) and in Fremantle (1902)."

A discussion followed. Members taking part were strongly of opinion that plague was frequently transmitted to man by the bites of rat fleas.

Victoria.

The monthly meeting was held on May 27th, 1903, at Edwards' Buildings, 178 Collins-street. Present: Dr. Gresswell (president) and ten members. A letter was received from the Board of Health asking for delegates from the Association to discuss the advisability or otherwise of getting the State Government to introduce a bill on the lines of the English Midwives Act, 1901. Dr. Bryant was appointed delegate to represent the Association at this meeting.

Dr. Henry read "Notes on a Case of Aneurism of the Transverse Aorta."

Dr. Gresswell drew attention to the influence of cold in relieving pain in such cases as this, and gave two illustrations under his care when house-surgeon at St. Bartholomew's Hospital of the wonderful relief produced by the application of the icebag. He was greatly

Digitized by Google

interested in the use of instruments for testing and calculating high pressure in the circulation of the blood, and had been engaged in experiments of this kind, more particularly in connection with scarlet fever. He found in the early stages of nephritis during an attack of scarlet fever, if the case is mild, there is no increase in the blood pressure, and the proper term for this condition is glomerulitis. During its progress there are numbers of leucocytes thrown off, and the uriniferous tubes below the glomeruli are also filled up, and hyaline material is passed away through the urine; but still there was not much rise in the blood pressure unless the case was very severe. Dr. Mahomet held always that the rise in blood pressure was due to the excretion of urea, but, after numerous experiments and the results of careful chemical and quantitative analysis, he (Dr. Gresswell) did not agree with him. In testing blood pressure he always placed most reliance first on his fingers, second on the sphymograph, and third on the sphygmometer. He would also like to ask what sort of tracings were obtained, and whether Dr. Henry found the sphygmometer reliable?

Dr. VANCE mentioned a case that he had seen at the Alfred Hospital in which all the cardinal signs of aneurism of the transverse aorta were present, and which had been used as a show case for demonstrating to students at the Melbourne and Alfred Hospitals both all the typical points of aneurism. The common carotid and subclavian were tied and the man died in three days, having developed maniacal symptoms before death. At the post-mortem it was found that the tumour was a hydatid full of daughter cysts growing from the apex of the pleura. He also cited a similar case in a female patient that died at the Melbourne Hospital.

Dr. WILLIS asked if the erythrol tetranitrate treatment had no effect in increasing the urine, and whether electricity might not have been used?

Dr. CUSCADEN wished to know what was the exact cause of death.

Dr BRYANT enquired whether the continuous use of chloride of calcium in 20 grain doses would cause coagulation of the blood, and mentioned that Wright, in his experiments in London, came to the conclusion that chloride of calcium first increased the tendency to blood clotting, but if continued for any length of time the blood became less coagulable than normal.

Dr. HENRY replied that the pain was not a prominent feature in this case, and he thought it was too far advanced for the application of cold. He had noticed the frequency of leucocytes in high pressure conditions, but often found albumen indicating a tubular nephritis. Dr. Vance's cases were most interesting, and showed the necessity for a guarded diagnosis. Concerning treatment by electrolysis, he did not have the courage to try it or the injection of gelatine, as he thought such remedies were too dangerous. He felt sure that chloride of calcium caused clotting, and he had also found it most useful in chilblains in children. He thought the sphygmometer was of great value in eliciting any changes of blood pressure. The absolute cause of death was exhaustion.

South Australia.

THE monthly meeting was held at the University on Thursday evening, 28th May, 1903. Present: Dr. A. A. Hamilton (president) and 29 members.

The minutes of the last meeting were read and confirmed.

Correspondence.—Two communications were referred to the Branch Council for consideration by them.

Exhibits were shown by several members, including Drs. Poulton, Symons, and W. A. Verco. The latter showed a very large dermoid tumour of ovary, with a plate of bone containing well-developed teeth, which he had removed; also the uterus removed from the same patient for carcinoma of the cervix.

Dr. Reissman read an elaborate and highly-interesting paper on "Diabetes," on which he was complimented heartily by several members, who afterwards discussed points arising from the paper.

Queensland.

A MEETING of the Branch was held in Brisbane on Friday, June 5th, Dr. W. S. Byrne, vice-president, in the chair, and an attendance of 20 members.

Dr. TAYLOR exhibited a man suffering from a huge tumour of the thigh of five years' duration.

Dr. W. S. BYRNE exhibited a baby in whom he had ligatured for hæmorrhage three arteries supplying a large nævus of scalp, with the result that the nævus had practically disappeared.

Dr. WILTON LOVE exhibited—(1) A man suffering from a rodent ulcer of eight years' duration in which the application of X-rays had resulted in a very marked improvement. (2) Microscopic specimens of adenoma papilliform from (*a*) tumour of ovary; (*b*) tumour of thyroid.

Dr. CAMERON exhibited—(1) A large uterine polypus removed from the cervix of a girl of 22. (2) A placenta showing numerous white fibrous patches, the delivery of which had been unaccompanied by hæmorrhage.

Dr. BYRNE cordially welcomed Dr. Marks on his return to Brisbane, and Dr. MARKS replied.

Correspondence was read relating to the A.N.A. question, and it was resolved unanimously—"That the present attitude of the Branch towards the A.N.A. be maintained" (namely, that medical appointments in connection therewith are inimical to the interests of the profession).

Dr. WILTON LOVE read a paper on "Notes on the Therapeutics of X-rays" (to appear in a future issue). Drs. Thomson, Taylor, Robertson, Flynn and Byrne discussed the paper, and Dr. Love replied.

UNIVERSITY INTELLIGENCE.

Sydney University.—At a meeting of the Senate of the University held on June 1st it was resolved that a sum of £500 be allowed for the maintenance of the scientific departments for the current year, that £100 from the Fisher Fund be granted for the purchase of books for the department of pathology, and that a lecturer be appointed to deliver a course of lecture demonstrations on anæsthetics to the students of the Dental School.

University of New Zealand.—Mr. Wolff Harris, of Bing, Harris & Co., has given £2000 for endowing a chair of physiology at the Otago Medical School.

N.S.W. Lodge Practitioners' Defence Fund. — The hon. treasurer acknowledges with thanks receipt of the following subscriptions and donation since date of last issue, and requests that those members of the branch who have not yet sent in their promised contributions will kindly do so without delay:—Subscription £2 2s. from Dr. Sandes; subscriptions £1 1s. each from Drs. English, W. Finlay, E. Tudor-Jones, Kinross, Lane, T. W. Lee, W. J. Morton, McClelland, McKay, Nickson, Palmer, S. S. Shirlow, Walton Smith, P. T. Thane; donation £1 1s from Dr. English. Total to date, £109 11s 6d.

Digitized by Google

REVIEW OF CURRENT MEDICAL LITERATURE.

SURGERY.

Splenopexy for Wandering Spleen.

Basil Hall (*Annals of Surgery*, April, 1903) records a case of the above, making only the ninth case recorded. Although the mortality of splenectomy for wandering spleen has been reduced to 10 per cent., it can hardly be regarded as the ideal operation until it is demonstrated that fixation is impracticable. The patient, a married woman aged 30, was admitted into the Bradford Infirmary on November 20th, 1901. She stated that she had been subject to bilious attacks since she was 14 years of age. Married at 21, and had had four children. The first labour was difficult and protracted, the subsequent ones normal. Had not been quite well since the first confinement. Has had a constant dragging pain in her left side when walking about, which has grown worse for the last seven years. Had lately suffered from attacks of acute abdominal pain coming on suddenly after some sudden movement. During these attacks she was very faint, and a large tender swelling could be felt in her abdomen. On admission patient was a rather thin, healthy-looking woman. Abdominal walls flaccid; a firm elongated tumour could be felt in the left hypochondrium, projecting below the costal margin and reaching nearly to the middle line at the umbilicus. It moved with respiration, and could be displaced by palpation in various directions; when the patient was standing it could be pushed almost into the right iliac fossa. The tumour was tender on manipulation and presented a well-marked notch on the anterior border. The urine was free from albumen or sugar. Blood count was negative. Operation.—Under ether an incision four inches long was made along the outer border of the left rectus abdominis. The lower pole of the spleen was exposed by this incision, and the whole organ was delivered through it without difficulty. It was 7½ in. long and 3½ in. wide in the centre; except for its size it was to all appearance a normal spleen. Whilst considering the advisability of removal, which would have been easy on account of the long pedicle, it was noticed that the notch on the anterior border was only two or three inches from the lower extremity of the spleen, and the depth of the notch was such that the lower pole of the spleen was only connected to the rest of the organ by a comparatively narrow isthmus. This at once suggested an easy means of fixing the organ. After rendering the parietal peritoneum raw in the splenic fossa in order to excite adhesions, the main body of the spleen was replaced in the abdomen; then, whilst the lower pole was held in the wound, the edges of the peritoneum were drawn tight by a purse-string suture until they tightly gripped the narrow isthmus in the notch. The abdominal aponeurosis was next sutured in a similar manner until it gripped the isthmus in the notch sufficiently tight to produce marked congestion of the now isolated lower pole. The left rectus was drawn outward somewhat, so as to overlap the projecting pole of the spleen as much as possible, and the skin incision sutured. A prominent lump the size of half an orange remained. There was no appreciable shock during or after the operation. For the first 24 hours after the operation the pain was severe and required morphine for its relief. Two days later a small opening was made through the skin and a drainage tube inserted, as fluid was collecting in the dead space beneath the rectus muscle round the projecting spleen. After this recovery was uneventful; the patient was entirely relieved of her symptoms, could undertake her household duties or any active exertion, and remained well at the end of 12 months.

The Surgical Treatment of Tubercular Peritonitis.

Fairchild (*Philadelphia Medical Journal*, April 18th, 1903) discusses the above in a short paper. The fact that the disease may involve primarily the pelvic organs, the appendix, the intestines, or some of the mesenteric glands, and extend secondarily to the peritoneum, is not without its influence in determining the course of procedure and the results to be obtained. There are certain intra-abdominal affections of a tuberculous nature that cannot be definitely diagnosed until the abdomen is opened, and which, if untreated by surgical means, infect the peritoneum. It is an interesting fact in connection with a pure tubercular infection that the bacillus has but a small resistance to the reaction processes of the tissues, and until a mixed infection occurs or a degenerative process develops, the tendency to destructive changes is not great. When the focus of tubercular infection of the peritoneum is in the tubes, the appendix, or the intestines, the tubercle bacillus is often associated with germs of other kinds, and we have to deal with other than pure tuberculosis of the peritoneum, and hence the problem of the treatment becomes more complex, difficult and uncertain. A primary unmixed tubercular infection of the peritoneum, with choked lymphatic spaces and ascites, and without much elevation of the temperature, has so often been cured by accident when the abdomen has been opened for some other purpose, or by intention when a complete diagnosis has been reached, that some misconception has arisen as to the curative value of abdominal section in tubercular peritonitis. The author does not pretend to lay down any rule to guide the surgeon as to when surgical treatment should be resorted to, but thinks the views of the late Dr. Fenger in the general condemnation of the operative treatment were too extreme. Nothing is better than the intuition of the surgeon founded on experience. It is, however, a recognised fact that any localised tubercular process is an element of danger, to be met by carefully-considered surgical procedures, and in absence of positive diagnostic evidence, an exploratory operation should be made to clear up the doubt. The conclusions arrived at by the contributor of the paper are:—(1) If an intra-abdominal focus of tuberculosis is diagnosed or is suspected, an abdominal section should be made with the view of efficient treatment. (2) If a chronic tuberculosis of the peritoneum, with ascites, is diagnosed or believed to exist, laparotomy is indicated as soon as it is found that medical and hygienic treatment has failed. (3) In fibrous tuberculosis of the peritoneum the same course should be pursued, and if cheesy degeneration has not commenced, or progressed too far, a certain percentage of recoveries will follow. In acute tubercular peritonitis with ascites and high temperature, laparotomy is useless. In extensive adhesive tuberculosis, with matting of the intestines, laparotomy is useless, and the attempt to separate the adhesions is dangerous in the immediate results.

An Operation for the Radical Cure of Aneurism based upon Arteriorraphy.

Matras (*Annals of Surgery*, March, 1903) describes an operation in which the sac is, as a rule, not extirpated nor disturbed, except in so much as is required to evacuate its contents and freely expose its interior, and in this way it may be regarded as a derivative of the old Antyllian operation. It differs essentially from either of the classical operations in the fact that no ligatures are applied to the main artery, and that the circulation

Digitized by Google

in the sac is arrested, and hæmostasis is secured, solely by suturing the arterial orifices found in the centre of the sac. Again, in suitable cases—that is, in the true sacciform aneurisms with a single orifice of communication with the parent artery—this method will allow the operator to obliterate the aneurism without obstructing the lumen of the artery or interfering with the circulation in the injured or diseased vessel. It differs essentially from the Antyllian operation in the fact that the cavity of the sac is not simply packed or drained and left to heal by granulation, but is at once obliterated by inverting or infolding the walls of the sac with the attached skin over it. The operation is applicable to all aneurisms in which there is a distinct sac, and in which the cardiac end of the main artery can be provisionally controlled. It is especially applicable to all forms of peripheral aneurisms of the larger arterial trunks (carotid, axillary, brachial, iliac, femoral, and politeal). The dominant and essential feature of the operation is that the aneurismal sac is regarded as a large diverticulum or prolongation of the parent artery with which it is connected; that the lining membrane of the sac is a continuation or expansion of the endothelial intima which lines the interior of the artery, and, in fact, of the entire vascular system, and that the sac itself, when not disturbed from its vascular connections is capable of exhibiting all the reparative and regenerative reactions which characterise the endothelial surfaces in general when subjected to irritation. For a full description of the operation the reader must be referred to the article itself, which is fully illustrated, but the main steps of the operation are as follow:—1. Prophylactic hæmostasis is secured by elevating the limb and applying an Esmarch elastic constrictor, or by exposing the main artery near the cardiac end of the tumour and compressing it by means of a loop of silk passed under it. 2. After all visible pulsation in the tumour has been arrested by the measures before mentioned, a free incision parallel with the long axis of the aneurism should be made down the sac, exposing it to view from one end to the other. 3. A free incision is now made into the sac, extending from one extremity of the tumour to the other in its longest diameter and in the line of the artery. The contained blood and clots are evacuated, and the interior of the cavity is freely exposed to view by vigorous retraction of its edges. This will expose to view all the orifices which open into the sac. When the hæmostasis is complete the interior of the sac should be gently but thoroughly scrubbed with gauze soaked in sterile saline solution with the view to clearing it of adherent laminated blood clots, which interfere with the healing of the sutured surfaces. 4. After the anterior of the aneurism has been carefully prepared by this preliminary toilet, the systematic closure of all the visible orifices opening into the sac by suture should be proceeded with. The sutures, either chromicised catgut or kangaroo tendon, may be either interrupted or continuous, and should be inserted after the Lembert plan. 5. In a sacciform aneurism an attempt is made to restore the affected artery to functional and anatomical integrity. 6. After all visible orifices in the sac have been closed by suture, the constrictor or other provisional means adopted to control the circulation are removed. 7. A second row of Lembert sutures may be inserted and the remainder of the sac and skin-flap is folded in and secured by a few sutures. A sterile gauze dressing is applied, and the limb wrapped in cotton batting and a splint applied if practicable.

Some recent work on Surgical Diseases of the Joints.

Carless (*Practitioner*, January, 1903) contributes a paper on the above, in which he reviews several papers of importance that have been recently published dealing with the diverse varieties of hip disease. Lovett (*Boston Medical and Surgical Journal*, August 14, 1902) discusses the ultimate diagnosis of 95 cases of hip trouble treated at the Boston Children's Hospital, four years after they came under treatment. He dismisses 15 of the cases from his consideration; of the remaining 80, 40 proved to be pure tubercular coxitis, while many more that had been diagnosed as tubercular in the early stage rapidly recovered. A thickening of the great trochanter is possibly the most marked and valuable differential sign in the diagnosis of tubercular coxitis. A. Broca and others have contributed three valuable papers to the *Revue d'Orthopédié* on the subject of acute arthritis and osteomyelitis of the hip. The authors divide the acute cases into two groups—suppurative and non-suppurative. They consider that an acute synovitis of the hip is not rare in children. Absence of muscular wasting, and enlarged inguinal glands, is strongly opposed to coxo-tuberculosis. Suppurative arthritis, dependent on acute osteomyelitis of the upper end of the femur, starts on the shaft side of the conjugal cartilage, and involves the joint because it is intra-articular. The Y-cartilage of the innominate bone is also a factor in the causation of suppurative arthritis. Grosjeau, of Berck, has studied this. Perforation of the acetabulum is said to occur in a third of all bad cases of coxalgia. The treatment of tubercular disease of the hip has not called forth many recent communications of importance. Mr. G. A. Wright has discussed the present position of this question, but has scarcely sufficiently emphasised the modifications in practice that have occurred of late in the substitution of minor methods for that of excision. That operation is certainly becoming much less common, and many cases that formerly one would have dealt with in that way are satisfactorily treated by other means. Carless thinks that excision of the hip is a most undesirable proceeding, and that every effort should be made in order to avoid having to undertake it. In not a few cases limited operations can be utilised with every prospect of success. Some examples are given where tapping the joint and the injection of iodoform emulsion, or the laying open of the joint and curetting with a flushing curette, have been successful. When the acetabulum is seriously involved and minor conservative measures do no good, it may be absolutely necessary to make some provision for direct drainage from the acetabulum. In some cases amputation at the hip gives the best results. Infection of the ilio-psoas bursa, communicating with the joint, may be a troublesome complication. Carless operated on two such cases in one day.

Knee Joint.—The problems which confront the surgeon in tubercular disease of the knee are of quite a different character. The best that one can expect in most cases is ankylosis in a good position. Excision should be avoided in children if possible, as the results are seldom good on account of interference with the epiphysial cartilage. Menciere, of Reims, condemns the usual methods of treating tuberculous joints by rest and fresh air, but recommends the inter-articular and interstitial injection of a solution of iodoform in ether, and the injection into the centre of the epiphyses of liquid carbolic acid; this he calls pheno-puncture. Minute directions for the performance of the proceeding are given. The article also deals with the articular lesions of hæmophilia, and with pneumococcic arthritis.

THERAPEUTICS.

Gordon (*Philadelphia Medical Journal*, March 21st, 1903) reports the results of the use of Trunecek's serum in 12 cases of disturbed cerebral functions caused by circulatory changes. In April, 1901, Trunecek, of Prague,

Digitized by Google

reported for the first time the effect of a combination of inorganic salts, especially devised by him for treatment of symptoms caused by arteriosclerosis. The principle of the treatment consisted mainly in introducing into the circulation a solvent of calcium phosphate, which is the main salt found in the walls of sclerosed blood-vessels. As calcium phosphate is not soluble in water, but only in a solution of sodium phosphate and magnesium phosphate (which are found in normal blood serum only in a feeble proportion), and of sodium chloride, which presents 70%, Trunecek conceived the idea of throwing these normal alkaline constituents into the general circulation of aged people, whose blood is relatively poor in these salts. Clinical experiments conducted by him in a number of cases with arteriosclerosis gave him excellent results, which, in his opinion, were due to the excess in the blood of salts which show a favourable effect upon the process of regeneration of the vascular endothelium, which is usually altered in arteriosclerosis. This solution was first administered by hypodermic or intravenous injections, but Leopold-Levi tried it in enemata and internally, and he altered Trunecek's formula for the internal administration as follows:—Sodium chloride, 10 grm.; sodium sulphate, 1 grm.; sodium carbonate, 0·40 grm.; sodium phosphate, 0·30 grm.; calcium phosphate and magnesium phosphate, of each 0·75 grm. M. ft. cachets No. 13. Two of these cachets were given daily to begin with. Of the 12 cases reported, 3 gave negative results, and, among the 9 successful ones, some gave only slight and some considerable improvement. Gordon remarks that the question naturally arises—"What is this beneficial effect due to? Do we find ourselves really in the presence of a dissolution of the calcareous deposits in the walls of the arteries and of a regeneration of their endothelial layers in cases of arteriosclerosis, as Trunecek believes? We certainly cannot affirm it, as there is no evident proof yet. If, on the other hand, the improvement in cases free from arteriosclerosis in purely cardiac cases or only in cases of anæmia is considered, then an explanation must be sought in some probable change in the physical or chemical properties of the blood or in the blood pressure. The latter consideration appears probable, as the experiments conducted by Tessier and Leopold-Levi demonstrate that in the majority of their cases a marked diminution of tension in the peripheral circulation was noticed." Whatever the intimate effect of this solution upon the circulatory disturbances in the brain may be, Gordon considers the results he has obtained justify the following conclusions:—1. The combination of the inorganic salts, known under the name of Trunecek's serum, may be a valuable remedy in some cases of disturbed cerebral function caused by circulatory changes. 2. Not only hypodermic and intravenous administration, but also internally, this remedy gave favourable results. 3. When the iodides, nitrites, and other means used in such cases are without avail, Trunecek's serum should be given a trial. Sometimes a combination of both may be necessary. 4. Several days, at least a week, must elapse before the desirable results can be expected. There are cases in which the remedy is absolutely useless. Gordon admits that the period of time during which his cases have been under observation is not sufficient for a final opinion, and the utility of the treatment can be decided only after a rigorous and prolonged comparison of its effects with those of other means of treatment.

Hedonal in the Treatment of Insomnia in Pulmonary Tuberculosis.

Reisman (*Buffalo Medical Journal*, October, 1902) remarks that the insomnia of patients suffering from pulmonary tuberculosis is due to various causes. Loss of sleep is rapidly followed by deterioration in the general health, loss of appetite and despondency. The usual hypnotics, such as morphia, etc., are accompanied by many by-effects which, to a large extent, nullify the good effects produced by them. The author gives the results of the use of hedonal in several cases of this nature. He states that as, according to Professor Dreser, hedonal is completely oxidised in the body to carbonic acid and water, there is no fear of any accumulation of the drug in the system, and he has found the remedy most useful, to be rapid in its action, non-irritating to the gastro-intestinal, circulatory, or genito-urinary systems, and devoid of after effects. As compared with morphia it does not engender any craving, and does not produce the headache, nausea, or disagreeable taste in the mouth and constipation. He uses the drug in 15 grain doses, combined, if necessary, with $\frac{1}{4}$th grain of heroin hydrochloride to allay excessive cough. He has used it in 18 cases with marked benefit.

Formalin in Septicæmia.

At the meeting of the New York County Medical Association in January last (*Medical Review*, January, 1903) Barrows reported a case of acute septicæmia after labour which was cured (?) by the intravenous injection of formalin. The patient was aged 26 years, who had a chill during the progress of labour with a macerated fœtus corresponding to about six months' gestation. Her temperature rose to 108° within a few hours after labour was over. Examination of the blood showed an absence of leucocytosis, but a pure culture of streptococcus was obtained. The urine contained albumin. When first seen by Barrows her temperature was 108°, the pulse 160 and over, respirations 38. She appeared to be dying. She was at once given 500 cc. of a 1 to 5000 aqueous solution of formalin. In three hours the temperature fell to 102°, and in 12 hours the temperature was the same and the pulse only 100. The temperature then dropped to normal, but rapidly rose again to 103°. A second injection of 750 cc. of the same formalin solution was then given. In 12 hours the temperature was again down to normal, and with one exception it never rose above this again. The patient made a complete recovery. Several blood cultures had been made in this case, but none since the first infusion had shown the presence of any streptococci. Frequent microscopical examinations of the blood had been made, but no change in the blood corpuscles had been detected. The albumin all disappeared from the urine. At the same meeting other cases were reported by Waitzfelder and others. A considerable difference of opinion existed at the meeting as to the *modus operandi* of the solution, some of the speakers thinking that the same result would be obtained by the use of normal saline solution. Whitridge Williams, of the Johns Hopkins Hospital, stated that remarkable and surprising variations occurred in cases of streptococcal infection irrespective of treatment. Many cases which were apparently hopeless had recovered without any treatment whatever. He believed that the method of attacking the bacilli in the blood was radically wrong, and he would not believe that Barrows had proved his contention until a large number of cases had been successfully treated.

DISEASES OF THE EAR, NOSE AND THROAT.

The Operative Treatment of Chronic Suppuration within the Temporal Bone.

Ballance (*Lancet*, April 11th), in a very important paper, describes some modifications of his former operation for mastoid suppuration. He urges that the radical

Digitized by Google

operation should be undertaken whenever the ear suppuration persists in spite of careful antiseptic treatment. He believes that such measures as curetting away granulations, removal of ossicles, polypi, etc., are, except in quite exceptional cases, not only inefficient but dangerous.

To attempt to cure cases of chronic otorrhœa without removing the bridge which overhangs the communication between the antrum behind and the attico-tympanal cavities in front is to act in opposition to a fundamental principle of surgery. On the inner side of the bridge infective granulations, caries, small encapsuled abscesses, and an open Fallopian tube are sometimes found. It is necessary also to curette the tympanic end of the Eustachian tube. The ulceration may extend into the tube, and collections of inspissated pus may be found in it. The subsequent healthy granulations which spring up will close the tube, and thus cut off the mastoid operation cavity from any infection from the throat.

In discussing the question of the healing of the large bone wound from the bottom, he condemns the method of systematic tamponning as being painful for the patient, and very tedious both for the surgeon and patient. He states that this after treatment requires to be carried on from three to six months, or even longer. On the other hand, skin-grafting will reduce the period of treatment to a few weeks.

During the operation he uses either a burr, gouge or chisel. In dealing with the membranous meatus, he states that he has abandoned the cut in the concha, which he advocated in his first paper. Instead of this he divides the floor of the meatus right out to the concha, and then the knife is carried, not through the concha but through the posterior half of the extreme outer end of the meatus, just at its line of junction with the concha. This flap has the cartilage removed from it, and is then turned up and fixed with stitches to the raw surface of the mastoid flap. On the second operation, for skin grafting, a crescentic portion of skin is removed from the mastoid flap of a width sufficient to adjust the pinna to its proper position on the side of the head. The skin graft is then applied to the inner wall of the tympanum, attic and antrum, and should slightly overlap the vertical boundaries of these cavities, but not extend below the lower margin of the antrum. Another graft is placed on the corresponding part of the inner surface of the mastoid flap. The grafts are maintained in position by means of tiny wisps of sterilised wool covered with gauze.

As a third stage in the operation, he recommends that from the sixth to ninth day after the grafting the main portion of the graft which is dead should be removed by irrigation through the meatus. If these procedures are properly carried out the operation cavity should be soundly healed in from five to six weeks after the first operation.

Nasal Suppuration.

Alolph Bronner (*Quarterly Medical Journal*) draws attention to the following points:—(1) That nasal suppuration is extremely common, and is often followed by dangerous complications; (2) that it is generally due to localised disease of bone, or affection of one or more of the nasal accessory cavities; (3) that in cases of nasal suppuration in children the discharge should always be carefully examined for diphtheria bacilli; (4) that cases of syphilitic rhinitis are often fatal if not treated locally; (5) that in most cases of nasal polypi there is a local disease of bone, or of one or more of the accessory cavities, especially the ethmoidal cells; (6) that in these cases the middle turbinal bone and the ethmoidal cells should be energetically scraped.

Hæmorrhage after Tonsillotomy.

Leipziger (*Medical Fortnightly*, September 10th, 1902) finds in the medical journals many cases of alarming hæmorrhage, but no reports of fatal cases; some were secondary, some continued off and on for nine days. Cessation of parenchymatous bleeding is effected probably by syncope favouring coagulation, or through vaso-motor influence brought on by unconsciousness. If the latter is true, removal of nervous excitement by hypodermic of morphia may prove to be the most desirable agent to check the hæmorrhage. The use of styptics seems ineffectual; the application is often injurious from the gagging and irritation produced, which in turn increase the bleeding and the nervous excitement. While Bosworth states that he knows of no case reported in sufficient details to warrant its being accepted as a death from hæmorrhage, Damionos (*Wiener Klinische Wochenschrift*, February, 1902) says that of 159 reported cases of serious bleeding seven were fatal. Three of the fatal cases were after operations by charlatans; two were children under 13 years, which is opposed to the general belief that severe bleeding after tonsillotomy never occurs in children.

Diagnosis of Tuberculosis of the Temporal Bone.

Jobson Horne (*Journal of Laryng.*, March, 1903) gives the following clinical phenomena as diagnostic of tubercular disease of the ear:—

(1) Absence of pain out of all proportion to the destructive character.

(2) Insidious onset.

(3) Marked loss of hearing power.

(4) Extensive destruction of bone, rapid extension to laryrinth, absence of headache and dizziness.

(5) Progressive and destructive character, leading perhaps to facial paralysis, or even severe hæmorrhage.

(6) Absence of intra-cranial complications.

(7) In some cases, considerable involvement of adjacent lymphatic glands.

Treatment of Suppuration of the Middle Ear.

Gray (*Lancet*, April 18th) states that anilin oil will dissolve iodoform, a saturated solution being one in seven. This solution keeps for a month or two if stored in a glass-stoppered bottle, and if impurities are carefully excluded. When a crimson colour develops it is useless for surgical purposes. He quotes a number of cases in which this solution has been used successfully in long-standing middle ear suppuration. The method to be employed is as follows: The ear is carefully syringed and dried out with pledgets of cotton wool. Five minims of the solution are then measured out, soaked up on a small piece of cotton wool, and applied with forceps to the secreting surface, or pressed gently into the perforation. The cotton wool is left in for five minutes, and then removed. The excess of the solution lying on the walls of the meatus may be swabbed up. The procedure is repeated twice or, at most, three times in the week, and installations of rectified spirit may be used on the intervening days. Some of the cases cured had lasted from 15 to 30 years. He advises that as anilin is toxic and possessed of remarkably penetrating power, the applications should be made by the surgeon himself. He also suggests that the use of this solution is particularly indicated in foul-smelling and presumably tuberculous cases.

Digitized by Google

CORRESPONDENCE.

London.

(FROM OUR OWN CORRESPONDENT.)

The Royal College of Physicians—The Edinburgh University Graduation Ceremony—The Spread of Cancer—Prevention of Malaria—The London Polyclinic—International Congress of Dermatology—Typhoid Plasma.

THE usual Comitia on the Monday immediately after Palm Sunday, for the purpose of electing a president for the ensuing year, was held at the Royal College of Physicians on Monday, April 6th. Sir William Selby Church, Bart., K.C.B., the president, occupied the chair, and gave the usual valedictory address, reviewing the principal medical events of the past year, and giving short obituary notices of the Fellows who had died. After a vote of thanks, proposed by Dr. Pavy and seconded by Dr. Liveing, the President vacated the chair, but was subsequently re-elected, by an almost unanimous vote, to another year of office. The numbers were:—Sir William Church 83 votes, Sir R. Douglas Powell 11 votes, Dr. P. H. Pye-Smith 7 votes, Sir Wm. H. Broadbent 4 votes, Dr. F. Pavy 1 vote, Dr. W. H. Dickinson 1 vote. The re-elected President was then presented with the insignia of his office by the Senior Censor, and having given his faith to the College, he expressed his thanks to the Fellows for the high honour which, for the fourth time, they had conferred upon him.

The Spring Graduation Ceremony in connection with Edinburgh University took place on April 8th. The honorary degree of LL.D. was conferred on Arthur Gamgee, M.D., Emeritus Professor of Physiology, Owen's College, Manchester; Sir John Jackson, London; Neil J. D. Kennedy, Professor of Law, University of Aberdeen; Benjamin Neeve Peach, Geological Survey, Edinburgh; Miss Flora Clift Stevenson, Chairwoman of the Edinburgh School Board; J. Maitland Thomson, Curator of the Historical Department, Edinburgh; and Sir John Usher, Bart., of Norton and Wells. Sir William Turner, the new principal, presided and delivered an address on "The Influence exercised by Legislation over the Universities of Scotland." He traced the course of legislation from 1854, when he first became connected with the University, and pointed out that the controlling body first became the University Court as a result of the Universities Act of 1858. He advocated the establishment of a general University Court in Scotland, which would deal with ordinances and other educational matters more promptly than under the present system of Parliamentary control. He thought they ought to strive to obtain greater educational freedom, and claimed for the Scottish Universities—the youngest of which could boast a history of more than 300 years—a right to the same powers as those granted to recently-constituted Universities in England. Sir William also made reference to Mr. Carnegie's gift to the Scottish Universities, and intimated that, in compliance with the conditions of the trust, Edinburgh University was making an urgent appeal for funds which would enable it to claim certain donations for new laboratories and other desirable improvements.

A blue-book has just been issued containing a report by Mr. R. E. Matheson, Registrar-General of Ireland, on the mortality from cancer, based upon information obtained from the local officers of his department. The report supplies a mass of impressive figures and valuable facts, all of which clearly prove that throughout the world the devastation of human life from this terrible disease is increasing with alarming rapidity. Part of this increase is probably to be explained by greater accuracy in diagnosis, but this will hardly account for the whole rate of progression which the figures bear witness to. In Ireland, in 1864—the first year in which the registration system was in force—the rate of mortality from cancer was 2·7 per 10,000 living. In 1871 it had risen to 3·2; in 1881 to 3·7; in 1891 to 4·6; and in 1901 it reached 6·5. In England and Wales, in 1864, the rate was 3·9. In 1871 it was 4·2; in 1881, 5·2; in 1891, 6·9; and in 1900 it had risen to 8·3. In Scotland, in 1864, the rate was 4·3; in 1871 it was 4·4; in 1881, 5·2: in 1891, 6·8; and in 1900, 8·0. Thus, speaking roughly, the mortality in all three divisions of the United Kingdom has more than doubled within 30 years. But this is also true of other countries, because, from statistics obtained, it appears that a smaller but distinct increase is in progress in Bavaria, Holland, Norway, Austria, Prussia and Italy; while from the United States of America there comes a similar story, though there the percentage increase mounts up more slowly than in Great Britain. As a rule the mortality is greater among urban than rural populations, and the percentage is somewhat greater among women than men. The report concludes with the following valuable summary of facts:—"That in many cases cancer recurs in the same family—grandparents, parents and other relatives of the person affected having suffered from that disease; that frequently, where a member of a family is afflicted with cancer, other members of the family suffer from tuberculosis; that in a number of instances, where members of a family are afflicted with cancer, other members of the family suffer from lunacy, idiocy, or epilepsy; that in some cases the disease has occurred in persons who have been in direct contact with cancer patients; that the disease has manifested itself in individuals who have used the tobacco pipes of persons suffering from cancer on the lip; that in some instances more than one case of cancer has occurred amongst different families living in the same house, or amongst successive occupants of the same house; that in a few cases the disease has appeared in different houses in the same locality about the same time; that cancer not infrequently appears after wounds and injuries; that in some cases cancer has supervened where there has been irritation of the lip consequent on smoking clay pipes; that cancer frequently shows itself where unfavourable conditions as to residence, food, etc., exist." These facts afford strong presumptive evidence that the disease may be spread or generated by unwholesome food and unhygienic surroundings; that it is frequently hereditary; and that, to some extent, it is both contagious and infectious.

The Liverpool School of Tropical Medicine has drawn up the following set of simple instructions for the guidance of Europeans living in tropical countries, with the view of spreading information as to the best means of guarding against malarial infection. The regulations are framed on the assumptions that malaria is contracted only from the bite of mosquitoes, and that hæmoglobinuric fever only attacks those who have suffered periodically from malaria. (1) Mosquito nets.—The senior should satisfy himself that all the European employees of the firm sleep within mosquito curtains of a mesh of not less than 10 holes to the inch, and kept free from rents. Rents are most easily mended by twisting up the net at the point of breakage and tying round with a piece of string. The net should, when in use, be hung inside the poles and tucked in under the mattress. When not in use the free sides of the net should be drawn together, twisted somewhat, and thrown across the top of the net. The net should not have a slit or join in the side. A mosquito is never found inside

Digitized by Google

a properly used net. It is wise to tack on a piece of material all around the net, above the level of the mattress, so as to protect the limbs from bites through the net during sleep. Mosquito boots, to protect the ankles in the evenings, may also be recommended. (2) Quinine.—All the European employees of the firm should take at least 15 grains of quinine per week, and should report in writing to the senior that they are doing so. (3) Mosquito-proof room.—The senior should see that the quarters provided by the firm for their European employees possess at least one sitting-room, or portion of a verandah securely protected by screens of wire gauze against the entry of mosquitoes. The room or portion of verandah selected for protection should be that which is commonly used by the inmates from sunset to bedtime. (4) Punkahs.—The senior should see that the office of the firm, and the common dining-room of the European employees, are provided with punkahs or electric fans, to be used during office hours and during meals respectively. (5) Details.—The senior should see (i.) that the premises of the firm are provided with at least one rubbish bin (with a cover); (ii.) that all cisterns, tanks, tubs, and other vessels required for the permanent storage of water, are furnished with accurately fitting covers and also with wire gauze caps to the pipes for the purpose of excluding mosquitoes; (iii.) that all useless pits, pools, tanks, disused wells, and other unnecessary collections of water within the premises of the firm are filled up or drained away; (iv.) that all open and permanent collections of water really required for irrigation, washing, or other purposes, are treated once a week with kerosene oil for the destruction of larvæ; (v.) that the surface and rain-water drainage of the premises is good, and that the drains and roof-pipes are in proper repair; (vi.) that the latrines are in good condition and well kept; (vii.) that the drinking water is obtained and stored in a cleanly manner.

The annual general meeting of the members and subscribers of the Medical Graduates College and Polyclinic was held at 22 Chenies Street, London, on the 31st March. Sir William Broadbent, president of the college, occupied the chair, and in formally moving the adoption of the report and balance-sheet expressed gratification at the continued progress in all departments of the work of the college. The great value of the Polyclinic was evidenced, he thought, by the multifarious departments of investigation and study which were being carried on within its walls. He never ceased to hope that eventually this value would become still further enhanced by the foundation of a fully equipped clinical hospital. He thought the institution had a strong claim on the public for support, because the services it rendered must result in benefits not to science only but to humanity as well. The honorary treasurer explained the details of the balance-sheet, and pointed out that though the institution was at present labouring under the burden of a large debt, contracted in connection with its foundation and equipment, its income now nearly balanced its expenditure. He appealed to members and subscribers for practical demonstration of their interest in the work which was being done, by increased subscriptions or donations to the foundation fund. This is the fourth year of the Polyclinic's existence, and though, like all young institutions, it has seriously felt the pinch of poverty, there can be no doubt that if its present rate of growth is maintained this financial marasmus will, by dint of careful nursing and management, be survived. The institution is endeavouring to fill a recognised want in the medical life of this great metropolis, and the fact that its membership now reaches close upon 1000 is sufficient evidence that its attempt is not without success among those in whose interests primarily it was instituted.

The fifth meeting of the International Congress of Dermatology will be held at Berlin from the 13th to the 17th September, 1904. It is proposed that the following subjects shall be selected for discussion:—(1) Syphilitic diseases of the circulatory apparatus; (2) skin affections in anomalies of metabolism; (3) epitheliomata and their treatment. All three subjects are of importance, and ought to give rise to interesting and valuable debates. They are of such a wide nature that interest in them extends far beyond their dermatological aspect; they will, therefore, appeal not to skin specialists only but to all branches of the profession.

It has been repeatedly proved within recent times that certain organisms are capable of surviving exposure to the temperature of liquid air—about 190°C—but it has been reserved for Dr. Allan Macfadyen to demonstrate that some of the non-sporing forms of bacteria, such as the typhoid bacillus and the bacillus coli communis, show no impairment of vitality even after immersion in liquid air for as long a period as six months. This is a very important discovery, which seems likely to have practical bearings on the future treatment of certain diseases, and already its importance is testified by the further researches of Macfadyen. In the course of an inquiry into the seat of production of the specific toxin of the typhoid bacillus, he satisfied himself that this did not lie outside the organism itself, and in order to prove its presence in the only other place where it could possibly exist, namely, within the organism, he called to his aid liquid air as a suitable medium wherein, by means of a mechanical contrivance, the bacilli could be broken down without the addition of any triturating substance, and free from the risk of chemical change during the disintegrative process. He found that such a disintegrated mass, when freed, by centrifugalisation, from whole bacilli if any remained, and from other suspended particles, yielded a milky fluid which invariably proved toxic or fatal when inoculated in small doses into animals. He therefore concluded that the typhoid toxin is contained within the bacillus, and experimentally proved that the micro-organisms became so brittle at the temperature of liquid air that they could be triturated without the addition of sand or any other substance such as had previously been found necessary for the purpose. The plasma thus obtained, when injected subcutaneously or intraperitoneally into guinea-pigs, confers complete immunity against a lethal dose of typhoid bacilli, and also induces in their blood the reaction of agglutination as regards the typhoid bacillus. In a communication to the Royal Society on March 12th, Macfadyen carries his important researches a step further, and announces that by repeated injections of the immunising plasma he has succeeded in rendering the blood-serum of the animal experimented upon both antitoxic and bactericidal; to such an extent that if an animal inoculated with a lethal dose of the living bacteria is, after half the time necessary to bring about death has elapsed, injected with a suitable dose of the protective plasma, it recovers. From experiments made on the monkey it was proved that subcutaneous injections of typhoid plasma did not produce local inflammation, nor any general disturbance beyond a moderate and passing increase of temperature. Doses of 0·5 to 1 c.cm. were injected at intervals of three or four days, and after a lapse of from four to six weeks the animal's blood was found to have become possessed of agglutination properties, whereas no such effect was produced on a typhoid culture by the serum of monkeys which had not been inoculated. From monkeys so treated, serum was taken and injected into guinea-pigs, and the results proved that the serum was possessed both of protective and curative properties. It would thus seem that the intracellular juices of the typhoid bacillus

Digitized by Google

gives rise, when injected into a suitable animal to the production of a serum, which is both bactericidal to the organism itself, and antitoxic as regards the toxin it is capable of elaborating. Macfadyen's researches not only point conclusively to the fact that the typhoid toxin is an intracellular product, but they further warrant the hope that when the serum can be obtained in greater amount, it will afford us the means whereby typhoid fever may be both prevented and in most cases successfully treated.

Victoria.

(FROM OUR OWN CORRESPONDENT.)

Army Medical Corps—Lunacy and Inebriate Laws—Medical Defence Association of Victoria—Visit of Japanese Warships.

THE school of instruction for Victorian officers of the A.M.C. was finished this month, to the mutual satisfaction of instructors and instructed. The course was attended most regularly by the medical officers, and this may be taken as a good guide of the value of the lectures and instruction. A dinner was given by the Director-General Army Medical Service, Col. Ryan, P.M.O. Victorian Commonwealth Forces, and the officers of the Army Medical Corps of Victoria, on the 21st May, and General Sir Edward Hutton and some of his staff, General Gaden, the Victorian Commandant, and the heads of all the various branches of the Defence Force were invited. Sir Thomas Fitzgerald and most of the principal civil surgeons and physicians were also invited. General Williams proposed the health of "The Guests," and coupled the names of General Sir Edward Hutton, Sir Thomas Fitzgerald and Colonel Hall with the toast. General Sir Edward Hutton made a most instructive reply, showing his intimate knowledge of the duties of an army medical service in proper working order, and also paying the Director-General the highest compliments on his organising talent and his professional ability, which had been proved to his satisfaction in New South Wales, South Africa, and now in Victoria. A very enjoyable evening was spent, and the status of medical officers in the army will certainly not be lowered by such a gathering as this.

Great hopes are entertained that the visit of Mr. Murray to New South Wales will result in an improvement in the lunacy and inebriate laws of the State.

The quarterly report of the Medical Defence Association of Victoria contains some important resolutions to be carefully noted and forgotten by members of our profession, many of whom place a present pecuniary advantage over a future and lasting gain. The report deals mostly with the encroachment of the lodges, and the successful diplomacy used in order to defeat these encroachments. A standard scale of fees is also given, which has been finally adopted by the Medical Society of Victoria, the British Medical Association (Victoria Branch), and the Melbourne Medical Association. These charges would, no doubt, be highly approved of if they could be obtained, but as a matter of fact nearly all suburban practitioners only charge 7s 6d for a consultation in the surgery instead of 10s 6d; £1 1s for a lunacy certificate, not £2 2s; £1 1s for administering an anæsthetic in all minor cases, instead of £2 2s; and midwifery fees range from £2 2s upwards, according to the position of the people. I have heard of patients going to one doctor who said his charge would be £10 10s for an operation; to another who would do it for £7 7s; and finally to another who, on hearing of the price of the other two, did the operation for £5 5s. This is the sort of thing that "improves the status of the profession." It is well known that some of the "elite" of our profession are guilty of this sort of thing, notwithstanding the standard scale of fees, and the high tone they are expected to adopt by all reputable members of the profession. The following promotions have been gazetted, viz.:—Capt. John William O'Brien, to be Major A.M.C.; Capt. Navroji Bamanji Gandina, to be Major Medical Staff.

The Medical Staff of his Imperial Japanese Majesty's warships were entertained by the Council of the Victorian Branch of the B.M.A. at Dr. Fox's, who demonstrated high tension currents to them and its relationship to the cure of tubercular disease. Dr. Fox also exhibited various electrical instruments, and gave experimental proof of their use. The visitors expressed themselves highly pleased with the demonstrations, and were also elected honorary members of the B.M.A.

"THE TREATMENT OF PULMONARY TUBERCULOSIS BY THE APPLICATION OF HIGH FREQUENCY CURRENTS."

(To the Editor of the Australasian Medical Gazette.)

SIR,—In your issue of the 20th of May, under the "Proceedings of the Victorian Branch," I find that I am reported in a manner which does not adequately convey my meaning. Your report is merely a reprint of my notes. What I said was, that at the inception of the treatment of incipient pulmonary tuberculosis by high frequency currents we should hesitate in ascribing immediate results to the effects of electricity; that improvement would depend on the stimulating effects of any treatment producing a powerful impression upon the patient's mind, in association with the discipline of exercise, feeding, etc. I thought we should await more extended investigations and be more analytical in our judgment. I further suggested that the experiment should be tried on a tubercular animal, and on a patient who should be blindfolded and whose ears should be stopped up, and who should have no suggestion made to him whatever of the nature of the treatment. I never impugned the accuracy of any of the statements made by the lecturer, and anyone seeing the excellent experiments of Dr. Fox could but be persuaded that there must be something in this wonderful new form of electricity. But until further material is at hand, showing deeper inquiry, I shall feel disposed, while not doubting its usefulness, to simply regard this form of electricity as a mental and psychological stimulant and tonic.—Yours, etc.,

LOUIS HENRY, M.D.

Melbourne, May 25th, 1903.

[Our correspondent's remarks were printed exactly as forwarded by our Victorian editor.—ED. *A.M.G.*]

A SIMPLIFIED METHOD OF ACCURATELY ESTIMATING DEGREES OF LEUCOCYTOSIS.

(To the Editor of the Australasian Medical Gazette.)

SIR,—Under the above title, Dr. Guy Griffiths, in the April number of the AUSTRALASIAN MEDICAL GAZETTE, described an original and interesting method of increasing the area over which the white cells may be counted. This ingenious method may not appear so simple to one doing an occasional blood count as it does to its author; and, personally, I prefer to have my glass slide ruled, and so throw the onus of accurate measurement on the maker. In the ordinary Thoma-Zeiss instrument the area ruled is one square millimetre. The instrument I have used for some time has nine such areas, only the

Digitized by Google

centre one of which, however, shows the smallest squares for the red cells. This gives, I think, a somewhat larger area than that mentioned by Dr. Griffiths, and prevents any chance of the microscopic fields overlapping.

The cell, I believe, is known as the Zapper's chamber, and can be got from any of the usual well-known makers. Mine is a Reichert, but the lines are not as sharply seen as on the ordinary Thoma-Zeiss I possess by Leitz. Some use this chamber in ordinary cases to estimate at the one count both leucocytes and red cells with a dilution of 1 in 100, but I have had as yet little experience of this, preferring a separate count for the white cells with a dilution of 1-20 or 1 in 10.—I am, etc.,

ARTHUR PALMER.

May 18th, 1903.

THE REMUNERATION OF MEDICAL WITNESSES.

(To the Editor of the Australasian Medical Gazette.)

DEAR SIR,—Your article on "The Remuneration of Medical Witnesses" requires careful consideration in regard to fees allowed, but what is of probably most concern to country practitioners is the inconvenience and expense they are put to when required to attend quarter sessions held at some distant town. It is seldom one can be absent from home, in such instances, less than a week; if he is fortunate enough in getting a *locum tenens*, it will cost him for that alone from £10 to £20, according to the distance he has to pay for travelling expenses, and as a set-off, after paying his own expenses, travelling or otherwise, for the week, he may have a pound or two in his pocket wherewith presumably he may meet the above expense. But that is not all; we all know the difference between collecting debts incurred to a *locum* and those to ourselves. Repudiation is the order of the day when the *locum* has taken his departure. I look upon it as a most unfortunate thing to be subpœnaed to give evidence away from home.

Some three years ago I had engaged a *locum* for three months, when I received a subpœna to attend a court to be held in my own town in the middle of that period. I had to come up from Sydney, and was four days travelling to and fro, two days at the court, and received two guineas. I know I had no legal claim to more, but I do think it is a harsh law that requires a man not only to have his holidays broken into and half spoilt, but to be left £10 out of pocket in addition.

If the above are grievances, I have experienced both once, at least, and have had occasion to be thankful for being able to escape at other times.—I am, etc.,

June 7th, 1903. F.

(To the Editor of the Australasian Medical Gazette.)

SIR,—On the 9th April, this year, I was summoned by the Crown to give medical evidence in a criminal assault case at the Maitland Quarter Sessions, the courthouse being 17 miles from my residence, and the subpœna ordering all witnesses to attend at 9 a.m., the *only* train from here arriving at 10.15 a.m., and leaving again about 2.15 p.m. to enable me to reach home again at night. I attended upon four days, necessitating a drive of 34 miles each day across country, making 136 in all. Upon completion of the case I was offered £6 15s, being £1 1s a day for attendance at the court and £2 11s mileage at the rate of 9d per mile (one way only for four trips), and no fee (as formerly) for giving evidence. This I declined, stating that I intended shortly visiting Sydney and would interview the authorities there. Upon my arrival in Sydney I called upon Mr. Beaver, Clerk of the Peace, who requested me to make an application in writing, which I did, and have just received an official intimation that a cheque for the amount as above *only* had been forwarded. In one interview Mr. Beaver stated that for the future *he* only intended to allow actual railway fare amount, and would give instructions that all cases coming from this part should wait until that train arrived. A clause in the new scale of allowances, published in the *Government Gazette*, April 8th, which I consider applies to my case, and to which I particularly drew his attention, states: "Members of the medical and other professions, summoned to give skilled evidence, for each day's attendance at the court, 21s. *Skilled witnesses not resident in the town where summoned to give evidence, for each day actually and necessarily absent from home*, 21s." But beyond stating he did not consider it applied, gave no satisfactory explanation, in spite of my pointing out that I was "actually and necessarily absent from home each day," requiring to leave by 7 a.m. and not returning till about 7 p.m.

I am, Sir, yours truly,

WEST MAITLAND.

June 11th, 1903.

A Query.

M.D. asks: "Does stercoraceous vomiting ever occur in uræmia, acute or chronic, uncomplicated by intestinal obstruction? Have any of your readers come across such a case verified by post-mortem examination?"

Medico-Ethical and Medico-Legal.

An Interesting Case.—An interesting case was recently before the Adelaide Supreme Full Court, when Mr. Ingleby sought for the discharge of an order made on March 22, which directed that Melissa Fairbairn, otherwise Madame Harpur, who was then in custody at Adelaide Gaol, should be taken to the hospital for identification by Annie Holmes, on whom it was alleged she had performed an illegal operation. Mr. Ingleby said the grounds of the appeal included the following:—(1) That the order should not have directed that the applicant be brought to any place other than a properly constituted court of justice; (2) that being charged with felony she could not be brought for the purpose of procuring evidence bearing upon the commission of such felony; (3) that the order was obtained upon evidence improperly received and was made upon the Lord's Day, and directed the act to be done upon the Lord's Day. The Court held that the order was bad, and accordingly it was discharged.

The Lunacy Law.—The following important judgment on the law as to lunacy was delivered in the Supreme Court, Sydney, by Mr. Justice Owen, Mr. Justice Walker and Mr. Justice Pring concurring:—This is an appeal from the order of the Chief Judge in Equity, dated March 10th last, directing Dr. Frederick Norton Manning and Dr. Eric Sinclair to visit William Moore in the presence of Dr. Gregory John Lamb O'Neill, Dr. George Thomas Hankins, Dr. Lucius Watson Harvey, or Dr. David Thomas, or any two of them, and that the said Dr. Frederick Norton Manning and Dr. Eric Sinclair should report to the Court on the mental state and capacity of the said William Moore. It appears that William Moore is one of the next of kin of the late James Tyson and is entitled to a share of about £80,000 in Tyson's estate.

Digitized by Google

A few days after Tyson's death Moore assigned his whole share to trustees to manage the same and to hold it in trust for himself for life, with remainder to his three surviving sisters, Mrs. Dwyer, Mrs. Eagles and Mrs. Fahey, but omitting the children of his two deceased sisters, Mrs. Buckley and Mrs. Mulholland. Previously to the execution of this settlement, Moore, at the instance of his own solicitor, was examined by two doctors as to his mental soundness and capacity to execute the settlement. At the date of the settlement, December 17th, 1898, Moore was residing with his sister, Mrs. Eagles, but towards the end of the year 1902 he went to reside with his sister, Mrs. Dwyer, and has continued to reside with her ever since. On October 28, 1902, Emily Mackenzie, a niece of William Moore, and daughter of his deceased sister, Mrs. Mulholland, presented a petition under section 102 of the Lunacy Act of 1898 for a declaration that William Moore is a person of unsound mind, and incapable of taking care of himself, or of managing his affairs, and for the appointment of a committee of his estate and person. By Rule 9 of the lunacy rules passed by the Judges of the Supreme Court under the powers conferred on them by section 169 for regulating the mode of proceeding before the Court in applications under sections 102 and 103, Part VII., it is ordered that "every such petition shall be verified by the affidavit of at least two duly qualified medical men, and of members of the family or other persons to whom the alleged insane or incapable person is known." The petition in this case was verified by 17 affidavits of relations and other persons, who deposed to facts which in their opinion showed that Moore was not capable of managing his affairs, but by only one affidavit of a doctor, who had known Moore and attended as family doctor for four years, but whose acquaintance had ceased some seven or eight years ago. Application was made by the solicitor of the petitioner in the year 1902 to Mrs. Eagles, and subsequently to Mrs. Dwyer, when Moore went to live with her, for leave to have Moore interviewed by two medical men of high standing in order to obtain from them a report as to the state of Moore's mind, but no reply was received from either of them. As the petition could not be received unless verified by the affidavits of at least two duly qualified medical men, the petitioner, on November 4th, 1902, took out a summons for leave to have the said William Moore examined on behalf of the petitioner by medical experts on the hearing of the petition, or at such other time as to his Honor should seem expedient. This application at first was dealt with *ex parte*, but subsequently on notice, and was opposed by Moore and Mrs. Dwyer, and a number of affidavits were filed by members of the family and others and also by six doctors who examined him as to his mental condition after the date of the summons, and who deposed that it would be injurious if he were examined by strange doctors unless the examination were conducted in the presence of some of his medical friends or relations. It will be seen that the order made by his Honor was modified by directing that the examination of Dr. Manning and Dr. Sinclair should be made in the presence of Dr. O'Neill, Dr. Hankins, Dr. Harvey, or Dr. Thomas, or any two of them, these being the doctors who were attending or had attended Moore, and who had made affidavits for him on the summons. The order made on this summons was appealed from on behalf of Mrs. Dwyer and William Moore on the following grounds:—1. That under the circumstances his Honor had no jurisdiction to make the said order. 2. That his Honor had no jurisdiction under the Lunacy Act, 1898, to order the said William Moore to submit to an examination as directed by the said order. 3. That on the evidence before him his Honor should not have made the said order. 4. That his Honor had no jurisdiction to make the said order in any event until after endorsement on the petition herein of the notice referred to in Rule 10 of the Lunacy Act Rules, 1900, and after service of such petition and affidavits upon the said William Moore. The circumstances of this case appear to me to call for an inquiry by the Court into the state of William Moore's mind, and the petitioner, as a niece of Moore, has an interest in such inquiry; but the refusal to allow Moore to be examined by medical men prevents this inquiry being made, as Rule 9 requires the petition to be verified by the affidavit of at least two medical men, and until it is so verified the petition cannot be dealt with, so that, as his Honor expressed it, "the arm of the Court would be paralysed." It was contended that the Lunacy Act of 1878 took away the power conferred on the Supreme Court in its lunacy jurisdiction by the Charter of Justice, and that it was a code which swept away all the former Acts and conferred on the Court only the limited powers mentioned in the Act. I cannot see that the Lunacy Act repeals or takes away the general powers of the Court; so far as the Court is concerned, it only substitutes a new mode of inquiry by petition to the Court itself for the old mode of inquiry by commission *de lunatico inquirendo*. I am therefore of opinion that the powers conferred on the Court by the Charter of Justice still remain vested in the Court as fully under the new process as under the old process by commission *de lunatico inquirendo*. The question still remains whether the order made by the Chief Judge in Equity was a proper order in the circumstances of this case. In *ex parte* Persee the Lord Chancellor held that before granting a commission *de lunatico inquirendo* he had to make a preliminary inquiry to satisfy himself that the case was one which required further inquiry. So the Court has to be satisfied of the necessity of further inquiry before the petition under section 102 of the Lunacy Act is accepted, and Rule 9 requires affidavits of at least two medical men to be filed with the petition in order to satisfy the judge. If, then, the person who is alleged to be of unsound mind, and the person with whom he resides, refuse to allow him to be examined by medical men, is this inquiry to be burked? Take the case of a raving lunatic as to whose insanity there is *prima facie* overwhelming evidence by relatives and others, is the Court to be prevented from proceeding under section 102 because the person in whose custody the alleged lunatic is refuses to allow any doctor to examine him? No doubt the power to examine an alleged lunatic *in invitum* is one that ought to be exercised with great caution, and only in cases of necessity. But seeing that William Moore was examined at the instance of his own solicitor by medical men before he executed the settlement of his share in the Tyson estate, and was again examined by several medical men before the hearing of the summons; and seeing also that Moore's own doctors only allege that the examination by strange doctors would, in their opinion, be injurious unless held in the presence of other doctors known to him, I think the order made by the Chief Judge in Equity was a proper order, and within his power. It was further contended that Rule 9 was *ultra vires*, as it imposed other conditions than were required by the Act as to the petition under section 102. This rule provides only for the form and mode of proceeding, and is, therefore, in my opinion, within the power of the judges to make. For these reasons I think the appeal must be dismissed with costs.

An anonymous donor has given £900 towards the erection of a new wing for the Kalyra Home for Consumptives at Belair, in South Australia.

Digitized by Google

PUBLIC HEALTH.

New South Wales.

Health of the Metropolis.—Report of the Medical Officer of Health for the month of May, 1903:—"The number of deaths in the metropolis, after excluding non-residents who died in Sydney hospitals, and including a few deaths of Sydney residents in outside institutions, was 448. The figure is 19 less than that recorded for April, and corresponds to an annual death rate for the metropolis of 10·65 per 1000 of the population. The causes of death which show most diminution for the month are: Diarrhœal diseases, 58 as against 89 in April; phthisis, 38 against 47 in April; and diphtheria, 7 against 14 in April. On the other hand, the deaths from typhoid fever increased from 7 in April to 11 in May, and respiratory diseases increased from 35 in April to 54 in May. The notifiable infectious diseases (scarlet fever, diphtheria and typhoid fever) have all been more prevalent this month than their average for May during the previous five years. This is particularly the case with scarlet fever, of which more attacks were notified than in any previous month for five years."

Schools and Infectious Diseases. — Local authorities under the Health Act are required to report any cases of notifiable infectious disease to the teachers of any schools attended by the patients. The matter was brought before the Burwood Council.

Smallpox. — On May 22nd the Victorian health authorities telegraphed to Dr. Ashburton Thompson, President of the Board of Health, that a passenger by the steamer "Gracchus," which reached Melbourne on May 2nd from India, was found to be suffering from smallpox. The patient stated that after leaving Java a man who sat in the saloon opposite to him had a rash similar to that from which he is suffering and was connected with a livery stable in Sydney. This man was subsequently traced to a country town. A medical officer competent to express an opinion regarding the symptoms of smallpox was despatched to examine the man, and reported that he failed to find any trace of the man having been afflicted with smallpox. He displayed no signs of having had a rash of any kind. Dr. Ashburton Thompson states that this is conclusive evidence that the man did not have smallpox, for, apart from scars, persons who have recovered even from a mild attack show stains on the skin for some time after they are convalescent.

Bubonic Plague.—Although between 200 and 300 rats and mice are examined each day in the laboratory attached to the department, in only one instance had an infected rodent been discovered during the first three days of this month; one more infected rat had been discovered since. For several days prior to that nearly all the plague-infected rats and mice came from a particular produce store in the area now cleansed by the City Council and Sydney Harbour Trust. Dr. Thompson obtained authority from the Executive Council to quarantine this store with a view of overhauling its contents and destroying such portions of it as might be considered a harbour for the mice. These operations have been carried out. Dr. Thompson is of opinion, judging by experience, that this plague focus having been extinguished, there will probably be no more trouble in that neighbourhood. In the early portion of the present outbreak a plague-infected rat was caught at Woolloomooloo Bay, and on a subsequent occasion another one out of a number of rats caught at Woolloomooloo Bay proved to be infected. This circumstance caused Dr. Thompson to give orders for particular attention to be paid to that quarter. The president warns the public not to relax their efforts in the killing of rats and mice, for although the number infected is very small as compared with those caught, the danger of the infection spreading has by no means passed away.

Typhoid Epidemic at Balmain.—Dr. Stokes, the assistant city medical health officer, who recently visited Balmain to inquire into the circumstances surrounding the outbreak of typhoid fever, has made a series of suggestions in regard to special measures which should be taken by suburban councils for the prevention of infectious diseases. The recommendations were as follow:—"1. To appoint two additional sanitary inspectors. 2. To make a house-to-house inspection of the borough at least once every six months. 3. To require owners and occupiers to amend all sanitary defects and abate all nuisances on their premises, and to maintain the same in a wholesome condition. 4. To make and enforce by-laws for the purpose indicated above. 5. To carefully investigate the conditions under which articles of food, especially milk, are prepared for human consumption, and from time to time to take samples of the same for analysis. 6. To disinfect all premises on which cases of infectious diseases are reported." The officer blamed the council for not attending to certain matters within the range of its work. In this respect the report stated:—"As regards special measures which are taken by your authority for the prevention of the spread of infectious diseases, it does not appear that anything of real value is done. A perfunctory cleansing of premises in which cases of infectious diseases have occurred, together with the burning of small quantities of sulphur or the sprinkling of disinfectant powders over gullies and closets, is usually the extent of the disinfection. Your inspector does his utmost in the limited time at his disposal to instruct people as to the proper methods to be adopted, but it is well known that disinfection, as carried out by householders, is, by reason of their want of special knowledge of the subject, never sufficient or satisfactory. Your authority should be prepared, and should offer, to disinfect all premises on which cases of infectious diseases are reported. In the next place, your authority has not taken full advantage of the powers to make by-laws conferred upon it by various Acts. By-laws providing for paving and draining stables, for compelling the use of suitable garbage boxes, for the paving and draining of back yards, for the proper flooring of closets, for the abolition of cesspits, for the keeping of poultry and animals so as not to be nuisances, for rendering buildings (especially fodder stores and butchers' shops) rat-proof, are all urgently required." The epidemic is now subsiding.

Queensland.

Bubonic Plague.—On the 1st instant the Health Officer, Bundaberg, who performed a post mortem examination on the body of the man who died of plague at Bundaberg on the 30th May ultimo, was reported to be suffering from plague. It has since been reported that the doctor's condition is satisfactory. Total cases to date: Brisbane, 19; Bundaberg, 3; Rockhampton, 2; Townsville, 3. Total deaths, Brisbane, 9. Number of rats examined in the Bacteriological Institute during the week ending June 13th, 246; number found infected, 1.

Victoria.

Health of Melbourne.—From the report of the Health Officer (Dr. Jamieson) for year 1902 we

Digitized by Google

learn that the total number of deaths was 1012, a considerable decrease on the number for 1901, which was 1075. The average rates of mortality per 1000 for three successive periods of six years were as follows:—Six years ending 1890, average, 19·4; years ending 1896, average, 15·96; six years ending 1902, average, 14·59. The steady lowering of the average death rate must be regarded as an indication of the continuous improvement in the sanitary condition of the population. The mortality from epidemic diseases was considerably below the average of recent years. The deaths from typhoid numbered only 9; from diphtheria and croup, 5; from scarlatina, 1; from measles, 6; from whooping cough, 10; and from influenza, 10; or a total of 41. No year now passes without deaths being reported as due to influenza, which seems to have taken on the character of a settled epidemic disease, though it has, and is likely to have, periods of excessive prevalence and fatality. The cases notified under the act were: Typhoid, 92; diphtheria, 122; scarlatina, 164. The other diseases are not notifiable, and few of the cases are reported or known in any way. When these figures referring to prevalence are compared with those of deaths, it appears that the case mortality was extremely low. This is notably true in the case of diphtheria, since they show a mortality rate of a little over 4 per cent., a very remarkable change for the better since the introduction of the antitoxin treatment. It is also gratifying to note the great and almost continuous lowering in mortality from typhoid. The mortality from the diarrhœal diseases, which is always to some extent dependent on seasonal conditions, was rather higher than in the previous year, 107 as against 88, but about the same as the average of the preceding three or four years, and much below that of earlier years. The benefit is largely due to improvement in the milk supply, but it is possible that fresh and stricter legislation might work a further improvement; but, in the main, the excessive amount of sickness and mortality in young children is due to prevailing ignorance and carelessness about proper methods of feeding. The number of births registered in the year, exclusive of those in the Women's Hospital, was 1330, an increase on the numbers for 1900 and 1901, which were 1218 and 1284 respectively. Deducting also from the total deaths under one year those occurring in the same hospital, the number 155 is got, representing a very low infant mortality rate of 117 per 1000 births. The chief causes of mortality, other than epidemic diseases, were: Tuberculosis, 135 deaths; diarrhœal diseases, 107; pulmonary diseases (other than consumption), 119; circulatory diseases, 124; nervous diseases, 102; urinary system diseases, 75; cancer, 47. Though there was some diminution of the mortality from tuberculosis as compared with some previous years, 155 in 1901, and an average of 153 in the five years 1897-1901, it is still true that the deaths due to this cause are more numerous than those of any other class.

Smallpox.—A case of smallpox was discovered at North Melbourne. The patient, a man aged 35, an Indian horse dealer, arrived by the "Gracchus" on May 2. Ten days later he fell ill, and received medical treatment. A report was made to the health authorities that the sickness was of a suspicious character. A special examination was at once made, and the sickness was diagnosed as undoubted smallpox. The attack was a mild one, and the patient rapidly recovered. Dr. Gresswell took all necessary steps to guard against the spread of the contagion. Another smallpox case was subsequently reported in connection with the steamer "Gracchus," the patient being a woman at Little Bendigo. Her husband returned to Bendigo by the "Gracchus" from Java three weeks ago. It is believed that the patient contracted the disease by washing clothes worn by her husband on the voyage, though he was apparently in good health. Up to the present there has been no further development of smallpox.

South Australia.

Scarlatina.—In Adelaide and suburbs, Port Adelaide, and, in a lesser degree, the country districts, scarlatina has for some time been, and still is, prevalent. During the past six months 847 cases and five deaths have been reported, and last month no fewer than 121 new cases in the metropolitan area came under the notice of the Central Board of Health. Taken generally, the Local Boards of Health have made no arrangements for the isolation of cases in the hospitals. The only board which has moved in this direction is that connected with the Kapunda Corporation, which contributes a sum towards the Kapunda Hospital for the isolation of infectious cases.

Sale of Condemned Meat.—The Mayor of Port Pirie was recently charged with having exposed for sale a quantity of beef intended for human consumption, such being considered as unfit for human consumption. Dr. Stewart, the health officer, gave evidence that the meat was decomposed, fly-blown and filthy. Mr. Stow, in summing up, said he had no doubt about the meat being bad. He found that the meat was exposed for sale for human consumption, but he thought a penalty of £3 and costs, in all £9, would meet the case.

New Zealand.

The Scarlet Fever Outbreak.—In the course of the evidence given at the inquiry at Auckland into the outbreak of scarlet fever, Dr. McKenzie, who returned from Africa in the troopship "Montrose," said the precautions taken to sterilise the baggage of the troopers on board that vessel were almost absolutely useless. Possibly it was difficult for the Health Department, then in its infancy, to deal with such a large amount of infected material, but terrible results had occurred, as the epidemic of scarlet fever had spread throughout the colony, and a number of lives had been lost. The troopers' kits should have been thrown overboard or burned.

Smallpox.—Two cases of smallpox were discovered on the steamer "Gracchus" at Lyttelton. In consequence of the outbreak of smallpox, 115 persons who boarded the "Gracchus" while at Timaru have been vaccinated. Seventy-three were also vaccinated at Dunedin and 57 at Lyttelton. Another case of mild smallpox occurred at Dunedin; Mrs. McNeill, who was living in the house where the lady passenger by the "Gracchus" who developed smallpox was staying, having contracted the disease.

Surgical Appliance Aid Society.—The fifth annual meeting of the N.S.W. Surgical Appliance Aid Society was held at the Town Hall, Sir James Graham, president, occupying the chair. The chairman, in moving the adoption of the report, stated that the aim of the Society was to provide proper appliances for people who were disabled in a manner that prevented them from earning their living without such aid. The Society took every care that the persons assisted were justly entitled to such help. The Hospital Saturday Fund had assisted the institution to the extent of £25, and the Government granted £50 to it. The financial statement showed a credit balance of £92.

Digitized by Google

The Prevalence of Phthisis in the City of Adelaide.

Abstract of Report by Dr. T. Borthwick, Officer of Health.

PHTHISIS is the disease which almost invariably heads the mortality list in this State. During the 10 years ending 1902, there were 3184 deaths from phthisis, and if we add deaths from other tubercular diseases we get a total of 4193 deaths from tuberculosis. That is an average of over 400 deaths per annum. The deaths from phthisis in this State represent a mortality of 0·84 per 1000. The mortality in England is 1·33 per 1000, and among the Australian States South Australia comes third on the list, Victoria being first with a rate of 1·16, and Tasmania being last with a rate of 0·62. If we divide this State into three groups—(1st) the metropolitan corporate towns, (2nd) corporate towns other than metropolitan, and (3rd) the remaining portion of the State—we find that the first shows a death rate from phthisis of 1·35 per 1000; the second, 0·91; and the third, 0·54. These figures include the imported cases, which probably to some extent increase the rate in all the corporate towns.

The conditions existing in Adelaide may be taken as typical of the whole metropolitan area. During the last 10 years the highest number of deaths from phthisis has been 93 in 1893-4, and the lowest is 64 in 1901-2, and there has been a gradual but slightly uneven decline during the intervening period. This decline is indicated also by the number of cases of phthisis reported under the Health Act since it came into force in 1899: during the first year, 72; the second, 116; and last year 79 cases were reported. If we take the average for the first two years we probably get very near the correct number for each year. Comparing thus 79 of last year with 94 of the preceding years the decline is satisfactory.

The total death rate of Adelaide for the year 1901-02 amounted to 18·78 per 1000. The death rate from phthisis was 1·62, and the death rate from all tubercular diseases 2·16. Thus it appears that phthisis caused $\frac{1}{11}$ and tuberculosis $\frac{1}{9}$ of all the deaths in the city. If we take other infectious diseases which are notifiable under the Health Act we find the death rate from these to be 0·38 per 1000. Thus phthisis caused four times and tuberculosis six times as many deaths as the other infectious diseases put together.

In regard to the ages of those affected by phthisis, we find that among the 79 who were notified last year, 50 of them were between the years of 20 and 40, 8 were between 10 and 20, 1 was under 10, and the remaining were over 40. This shows how the disease particularly affects persons in the prime of life.

The preceding remarks, which are of local character, support the following conclusions:—

1. That Australia as a whole compares favourably with England in regard to deaths from phthisis, but that this State occupies an unenviable position when compared to the rest of the Commonwealth.
2. That the corporate towns, and especially the metropolitan towns, and more particularly the city, are more affected by this disease than the country districts, or in other words, the more populous a centre is the higher the death rate from phthisis.
3. That the parts of the city particularly affected are the wards where insanitary conditions exist and where poverty is prevalent.
4. That there are indications of a more or less continuous decline in the prevalence of phthisis in the city during the last 10 years.
5. That phthisis is responsible for a large share of the total mortality, and that it far overshadows the mortality from other infectious diseases.
6. That the disease attacks persons chiefly in the prime of life, thus frequently depriving households of their breadwinners, and leading to increased poverty and overcrowding in insanitary houses, and so facilitating the spread of the disease.

THE SPREAD OF PHTHISIS.—There is reason to believe that tuberculosis is sufficiently prevalent among the cattle of this State to justify the inclusion of the meat and milk supplies as a source of the spread of the disease; but, undoubtedly, the chief source of dissemination is the sputum which is expectorated from the lungs of diseased persons. Contributing causes have been already referred to, as insanitary houses and poverty.

THE CONTROL AND PREVENTION OF PHTHISIS.—The steps necessary to attain this end are obvious from the foregoing statements.

Improved Sanitation.—This is of great importance in dealing with this matter, and is not being overlooked in the city, where the sanitary inspectors carry on systematic house to house inspection, and many insanitary houses have been removed or materially improved during recent years.

Supervision of Milk and Meat Supplies.—The supervision of the milk supply of the metropolitan area has been put on a satisfactory basis by the appointment of inspectors by combined boards of that area, and constant vigilance should not be relaxed. Unfortunately the same cannot be said of the supervision of our meat supplies. Naked eye examination only can be carried out under present conditions, and this is insufficient to exclude all diseased meat from consumption. What is urgently required is the establishment of public abattoirs, and a large central abattoir for the whole metropolitan area is preferable to a series of small ones.

Care of Patients suffering from Phthisis.—This has two aspects (*a*) their curability, and (*b*) their danger to the public health. (*a*) It is now recognised that in the early stages at least of this disease the patient can be cured provided he is placed under suitable surroundings, which are best obtained in a sanatorium. Hence it is essential to the success of any scheme to provide such sanatoria. At present, in the city, we do our best by giving the patient and his friends printed instructions of what to do at home to help himself and to prevent the spread of infection. We also send our trained nurse to show them how to carry out these instructions, and to generally supervise these patients, and disinfectants are supplied free of cost to all poor persons. Our sanitary staff disinfects every house vacated by a consumptive patient either as a result of death or of removal to another house. (*b*) The advanced cases constitute the greatest danger to the public health. Those who are able to get about spread infection abroad by means of their expectoration. The spitting by-law will help to lessen this danger and should be rigorously enforced. But an asylum of some sort is urgently required where these advanced helpless and hopeless cases could be cared for.

PROVISION OF SANATORIA.—The local boards should undertake to provide for the curable cases, and then ask the Government to provide for the incurable cases. The old asylum of North Terrace has been suggested as a suitable place for the latter purpose, and, although not an ideal place, I see no valid reason why it should not be utilised. In regard to the provision of a sanatorium for curative purposes, it may clear the way to state briefly the conclusion arrived at by a special committee appointed by the South Australian Branch of the British Medical Association a few years ago to consider this

Digitized by Google

very matter. The first point discussed referred to situation, and it was decided, after a visit to Belair, that the objections which had been raised to Kalyra Home were not insuperable. It was decided that an extension of Kalyra was preferable to establishing a new sanatorium, chiefly for economic reasons, as this would facilitate any movement to secure additional sanatorium accommodation. The James Brown Trust, by which Kalyra is managed, has been hampered in the past by insufficiency of funds, and the result has been twofold—there has been insufficiency of accommodation, and there has been the necessity of making a charge of 10s per week for each patient admitted, so that the poorer classes have been excluded from participating. These poorer patients are the very ones which need accommodation most, not only in their own interests, but in the interests of others. The Trust can raise money to build another wing, and are willing to do so at once, provided the annual maintenance can be assured. A bed costs £50 per annum, and will accommodate three or four patients a year, and the Metropolitan Boards should guarantee the amount necessary to maintain this wing. The country towns and districts might also do a share in regard to further extension. *Failing this co-operation* of the local boards a big effort should be made to get sufficient money from the public to endow the James Brown Trust in order to enable it to maintain the proposed new wing for patients unable to pay; and to stimulate the public interest in the matter, it might be advisable to establish a local branch of National Association for the cure and prevention of consumption.

Two other considerations cannot be admitted. *The first* is the necessity of establishing a settlement in the country, to ensure the complete restoration to health of discharged patients. *The second* is the necessity for establishing a fund to relieve the families of the unfortunate consumptives from the effects of grinding poverty when the patients happen to be the breadwinners.

HOSPITAL INTELLIGENCE.

Launceston General Hospital.—On May 11th Dr. McCall, the Chief Secretary, visited the Launceston Hospital, and, after an inspection and a conference with the superintendent, came to the conclusion that the institution could not bear the reduction in subsidy made by Parliament last session. Lately an unusual strain had been placed upon the hospital by an outbreak of typhoid fever at Scottsdale and Derby, whence patients were removed to the institution. Next session of Parliament the Chief Secretary will place a larger sum upon the estimates for Launceston Hospital, and also ask the House of Assembly to restore the amount deducted last year.

Hobart Contagious Diseases Hospital.—The Government are about to make alterations in the women's part of the Hobart gaol with the view of removing thither the patients at the Lock Hospital, who will occupy quarters specially prepared for them. By this arrangement the Government will save £90 a year now paid to the matron of the House of Mercy as matron of the hospital referred to.

Gundagai Hospital.—Considerable feeling exists in the town and district over the site for the proposed new hospital. On May 7th a largely-attended public meeting decided unanimously against the removal of the hospital to the Glebe, contending that the present site was the most suitable. At a special meeting of the hospital committee a letter from the Mayor of Gundagai, conveying the resolutions of the public meeting, was considered. It was proposed—"That the Mayor be written to and thanked for forwarding the resolutions of the public meeting, and to test the suitability or otherwise of the sites that were placed before the committee, it is hereby resolved to request the Board of Health to send an officer of the department to Gundagai to inspect the sites from which the committee selected glebe land, and to report which is the best on which to erect the new hospital." The motion was carried.

Royal North Shore Hospital.—The Royal North Shore Hospital of Sydney was officially opened on June 10th by Sir John See. The Premier was received by the president of the committee (Mr. J. Randal Carey) and the members of the committee and shown over the buildings, which comprise an administrative block and one pavilion with isolated wards, kitchen and other very necessary adjuncts. Provision is made for the reception of about 50 patients, but on completion of the design accommodation will be found for upwards of 160 patients. Assembled in the lower ward of the pavilion was a large and representative gathering, amongst those present being Sir John See, Messrs. J. R. Carey (president), members of the committee, Drs. Isbister, Newmarch, Sheldon, Doak, Arthur (hon. medical staff), Dr. Newman (resident medical officer), Professor Anderson Stuart, Dr. Hay, Dr. Campbell, Dr. Pockley, Dr. O'Reilly, and others. The president (Mr. J. R. Carey) on behalf of the trustees, the committee and subscribers of the hospital presented Sir John See with the key with which he had opened the building. Sir John See expressed the pleasure it gave him to declare the hospital open for the reception of patients. He paid a tribute to the hospital management, and congratulated the committee on the magnificent edifice that had crowned their efforts. He congratulated the medical men of the State on their ungrudging and uncomplaining services given for the benefit of suffering humanity, and he added that in this connection the nurses should not be forgotten, as in the successful management of any hospital it had been clearly shown that their services were as completely necessary as those of the medical profession. To give the best results it was imperative to provide buildings complete in detail with a due regard to sanitation, ventilation and light, so that the spread of disease could be successfully combated. He wished the hospital every success.

MILITARY INTELLIGENCE.

NEW SOUTH WALES.

THE following redistribution of officers belonging to the Army Medical Corps (partially-paid and volunteer establishments) has been made:—

Principal Medical Officer: Major R. E. Roth, D.S.O., commanding Army Medical Services. Staff Officer: Captain G. L. Mullins, Staff Officer, Medical Services (Permanent Forces). Lieutenant-Colonel: T. H. Fiaschi, D.S.O., Senior Medical Officer, Field Force, attached to No. 1 Squadron Lancers. Majors: Major A. J. Hood, attached to 5th Regiment (headquarters); Major W. L'E. Eames, C.B., Senior Medical Officer, Newcastle district, attached to 4th Regiment (headquarters); Major A. E. Perkins, D.S.O., 3rd Regiment (headquarters). Captains: Captain R. G. Alcorn, No. 4 Squadron, Lancers (Maitland-Singleton); Captain J. L. Beeston, commanding "C" Company, A.M.C. (Newcastle); Captain G. A. Marshall, 1st Regiment (headquarters); Captain J. Marshall, No. 3 Squadron, Mounted Rifles (Bega); Captain F. H. Wrigley, 4th Regiment (Glen Innes); Captain J. B. Moore, No. 1

Digitized by Google

Squadron, Mounted Rifles (Molong-Bathurst); Captain G. H. W. Smith, New South Wales Artillery (field); Captain H. Kirkland, 3rd Regiment (Lithgow); Captain B. J. Newmarch, 1st Regiment (North Sydney); Captain G. Read, No. 2 Squadron, Mounted Rifles (Picton-Camden); Captain T. M. Martin, commanding "A" Company, A.M.C., Acting-Adjutant A.M.C.; Captain C. A. Edwards, 2nd Regiment (headquarters); Captain F. W. Hall, commanding "B" Company, A.M.C.; Captain N. R. Howse (Hon. Major, V.C.), 3rd Regiment (Orange); Captain W. M. Helsham, 3rd Regiment (Richmond); Captain R. D. McMaster, 2nd Regiment (Goulburn); Captain G. S. Samuelson, 4th Regiment (Armidale); Captain E. P. McDonnell, No. 3 Squadron, Mounted Rifles (Forbes); Captain J. Kerr, Wollongong district; Captain M. O'G. Hughes, 8th Regiment (headquarters); Captain H. K. Bean, 4th Regiment (Wallsend); Captain J. A. Dick, 7th Regiment (headquarters); Lieutenant W. Kelty, 3rd Regiment (Orange); Lieutenant G. Watt, 1st Regiment Reserves (Narrandera); Lieutenant J. English, 1st Regiment (Yass); Lieuteuant C. L. Dawson, No. 3 Squadron, Lancers (West Camden-Berry); Lieutenant F. G. Connor, No. 5 Squadron, Lancers (Lismore-Casino); Lieutenant H. E. Lee, 1st Australian Horse (Gunnedah); Lieutenant R. Beith, 2nd Regiment (Kiama); Lieutenant A. H. Horsfall, D.S.O., N.S.W. Artillery (Newcastle); Lieutenant R. U. Russell, 8th Regiment (Newcastle); Lieutenant H. R. Cope, 4th Regiment Reserves (Glen Innes); Lieutenant N. J. Dunlop, "C" Company, A.M.C. (Newcastle); Lieutenant W. A. H. Burkitt, 1st Australian Horse (Goulburn); Lieutenant J. McPherson, 1st Regiment (Young); Lieutenant H. H. Marshall, N.S.W. Artillery (headquarters, temporary); Lieutenant A. Y. Fullerton, (hon. captain), 1st Australian Horse (Northern Squadron). Second Lieutenant and Quartermaster: E. J. Bowman, Army Medical Corps.

The following have been placed on the reserve of officers:—Lieutenant-Colonel R. V. Kelly, C.B., Majors J. McLeod, S. H. McCulloch, E. J. Jenkins, Lieutenant C. S. Willis, unattached list.

NEW ZEALAND.

Peter Martin Keller to be Surgeon-Captain, New Zealand Volunteer Medical Staff; Alfred George Talbot to be Surgeon-Captain, New Zealand Volunteer Medical Staff; Surgeon-Captain Benjamin Locking, to be Surgeon-Major, New Zealand Volunteer Medical Staff.

The Government of New Zealand has appointed Drs. King, Herbert and Baldwin as a board to carry on the work of examination of returned soldiers for the North Island.

Dixon, Joseph Francis (late Tenth New Zealand Contingent), to be Surgeon-Captain New Zealand Militia.

Dryden, Douglas Dixon, to be Surgeon-Captain New Zealand Volunteer Medical Staff.

Skerman, Brigade Surgeon Lieutenant-Colonel Sidney, V.D., to be Brigade Surgeon-General New Zealand Volunteer Medical Staff.

Trotter, Ninian George, to be Surgeon-Captain New Zealand Volunteer Medical Staff.

PERSONAL ITEMS.

Dr. W. B. Studdy has left Riverstone, New South Wales, for Miller-street, North Sydney.

Dr. W. B. Dight, late of Warwick Hospital, Queensland, has taken over Dr. Studdy's practice at Riverstone, New South Wales.

Dr. G. H. Rowlands has left New South Wales for Fitzroy, New Zealand.

Dr. R. R. S. Mackinnon, who has been medical practitioner at Warialda, New South Wales, for the past nine years, has resigned his appointment as medical officer of the hospital.

Dr. S. Monti has left New Italy for Broadwater, Richmond River, N.S.W.

The will of the late Dr. Phillips, of Adelaide, has been sworn for probate at £30,700. The whole estate is left to testator's family, except collections of coins, minerals and shells, donated to the public library, museum and art gallery, Adelaide.

Dr. E. H. Scott has left Kumara, N.Z., and succeeded to Dr. T. B. Whitton's practice at Reefton, New Zealand.

Dr. Ewbank, formerly of Adelaide, arrived by the R.M.S. "Ormuz" from England, where he has been on a twelve months' trip. He is now staying in Perth.

Dr. Kearney, who has practised at South Grafton, N.S.W., for seven years, was entertained at a farewell social on 21st May, and presented with an address by the Mayor on behalf of the citizens.

Dr. Balls-Headley has been reappointed as Deputy Grand Master of the Freemasons of Victoria.

Dr. Martin, of Wellington, New Zealand, who has been seriously ill with an attack of pneumonia, is now recovering.

Dr. F. R. Mackay arrived in Wellington by the "Gothic." He intends taking up work on behalf of the Government Insurance.

Dr. Ronald MacDougall, accompanied by his wife, was a passenger for Wellington by the "Gothic." Dr. MacDougall was for 13 years in charge of the Military Hospital, Queenscliff, Victoria. He intends to remain in New Zealand for about a year, after which he returns to the old country permanently.

Dr. and Mrs. Martin, of Dunedin, New Zealand, left on a short visit to the old country in the P. & O. s.s. "China."

Dr. Brugh, of St. Bathans, Dunedin, has left on a six months' visit to England and the London hospitals to further pursue his medical studies. Dr. Tilly is his *locum tenens*.

Dr. D. J. Burt, of Dunedin, who has been in England for the last few months, left London last month for Dunedin.

On April 15th, Dr. R. V. Fulton, who has resigned his position as medical officer to the Loyal Caversham Lodge, Dunedin, New Zealand, was presented by the members with an illuminated address, as a mark of the esteem in which he was held by the lodge.

Digitized by Google

Dr. Hogg, chief medical officer of the Hospital for Insane at Parramatta, N.S.W., when cycling in the local park recently, lost control of the machine, and fell into a causeway, receiving a severe shaking, but no serious injury.

Dr. E. W. Sharman has been returned as councillor for the Grafton Ward, Auckland.

Whilst Dr. Cox, of Forbes, N.S.W., was driving in the Wandary station on 9th June the horse shied and threw him out. Dr. Cox was severely bruised and the vehicle smashed.

Dr. Mackinnon, of Warialda, N.S.W., was on 10th June presented by the Mayor with a gold sovereign-case and 60 sovereigns as a mark of esteem, on leaving for North Sydney.

On 8th June, Dr. Isbister, on resigning as medical adviser to the Protestant Alliance Friendly Society Lodge 22, North Sydney, after three years' service, was presented with an illuminated address.

Mr. W. H. Steel, M.B., is to act temporarily as visiting surgeon to the gaol at Young, N.S.W., during the absence on leave of Alfred Campbell, M.R.C.S. (Eng.)

The Hon. Dr. Mackellar, M.L.C., has resigned his seat on the board of directors of the Sydney Hospital. Dr. Creed, M.L.C., has been appointed to succeed him.

The death is announced of Mr. Frederick E. Sloper, M.P.S., chemist and druggist, of Oxford-street, at the age of 80 years. He was regarded as the oldest chemist and druggist in business in Sydney, and was well known and highly esteemed for his many good qualities.

Dr. Earle Page has succeeded to the practice of Dr. Kearney at South Grafton, N.S.W.

A social and presentation of addresses to returned soldiers took place at Hillgrove last month. Dr. Hardcastle, president of the rifle club, presented the addresses. There was a large attendance.

Dr. Muir, late resident medical officer, Women's Hospital, Melbourne, was entertained at dinner at the Port Phillip Club Hotel, by the Hon. Medical Staff, on Monday, the 25th ult. Dr. Helen Sexton, on behalf of the staff, presented him with a handsome illuminated address. As a resident Dr. Muir was very popular, and deservedly so, as he rendered loyal service to the hospital and staff during a period extending over two years. On Thursday, accompanied by Dr. Code, he took his departure for England, where he intends to remain a couple of years to further complete his studies.

At a meeting of the Melbourne Hospital committee on June 2nd it was unanimously resolved to make Sister Bartley a life governor of the institution in recognition of her long and faithful services during the past 15 years.

Dr. F. Goldsmith, who has been some months in India on plague duty for the Imperial Government, will shortly return to South Australia.

The South Australian Government has arranged with Dr. Shanahan, of Carrieton, to proceed to the Arltunga goldfields to act as medical officer.

Mr. Charles Lloyd Morice, M.R.C.S. (Eng.), L.S.A. (Lond.), has been appointed a member of the Senate of the University of New Zealand.

Dr. R. Bindon Stoney, late of Nowra, N.S.W., has succeeded to the practice of Dr. T. O. Smith, Echuca, Victoria, who has left for America.

Dr. C. D. H. Rygate, of Wellington, N.S.W., is moving to Vulture-street, South Brisbane, at the end of the present month.

Dr. Cole, the District Coroner, Melbourne, has received a notification from the University of Durham that the degree of M.D. has been conferred upon him. Dr. Cole graduated at the Durham University, taking the degree of M.B.

Dr. W. Butler Walsh has been appointed physician to out-patients at St. Vincent's Hospital, Melbourne.

MEDICAL APPOINTMENTS.

NEW SOUTH WALES.

Anderson, Hugh Miller, M.B. (Syd.), to act temporarily as Visiting Surgeon to the gaol at Cootamundra during the absence of Dr. W. Hull, on leave.

Broad, William, M.B., B.S. (Glasg.), to be Government Medical Officer and Vaccinator at Narrandera, *vice* Dr. George W. Watt, resigned.

NEW ZEALAND.

Chadwick, G. F., L.R.C.S., L.R.C.P. (Edin.), to be Public Vaccinator for the District of Eketahuna.

Cory, Guy Chamberlain, M.R.C.S. (Eng., etc.), to be Public Vaccinator for the District of Ross.

Chesson, Herbert, M.R.C.S. (Eng., etc.), to be Public Vaccinator for the District of Rakaia.

Donaldson, Henry, L.S.A. (Lond.), to be Public Vaccinator for the Districts of Nokomai and Switzer's.

Dukes, Dr., to be Medical Officer to the Paparoa Medical Committee.

Frost, Dr., to be Hon. Bacteriologist at the Auckland Hospital, resigned.

Holland, Charles H , to be Public Vaccinator for the District of Te Awamutu.

Hudson, James, M.R.C.S. (Eng.), to be a Port Health Officer, under "The Public Health Act, 1900," for the Port of Nelson, *vice* Dr. Roberts, resigned.

Jenkins, W. M., to be Public Vaccinator for the District of Karamea.

Keller, Peter Martin M.D., etc. (U.S.A.), to be Public Vaccinator for the District of Rangiriri.

Keller, Florence, M.D. (U.S.A.), to be Public Vaccinator for the District of Rangiriri.

Low, Charles, M.B., M.S. (Edin.), to be Public Vaccinator for the District of Tauranga.

Matthews, John Morton, M.B., B.S. (Univ. N.Z.), 1896, to be Public Vaccinator for the District of Gore.

McGavin, D. J. S., M.R.C.S. (Eng., etc.), to be Public Vaccinator for the Districts of Ormondville and Norsewood.

Todd, William, M.D. (South California), to be Public Vaccinator for the District of Dipton.

Winkleman, Charles P., to be Public Vaccinator for the District of Te Awamutu.

Wohlmann, Arthur Stanley, M.D., to be a member of the Rotorua Town Council, *vice* George Geils Kenny, M.B., resigned.

WEST AUSTRALIA.

Black, Dr. Victor, to be Officer of Health at Perth, *vice* Dr. Macaulay, during the absence of Dr. O'Connor.

Belgrave, T. B., M.R.C.S., M.D., Medical Officer of the Wyndham Hospital and Resident Magistrate in the district, to be Visiting Justice to the gaols in East Kimberley.

Barber, G. W., M.R.C.S., L.R.C.P., to be Acting Resident Physician at the Kalgoorlie Hospital during the absence on leave of Dr. James Thompson.

Digitized by Google

Barber, G. W., M.R.C.S., L.R.C.P., to be Acting District Medical Officer, Kalgoorlie, during the absence on leave of J. A. O'Meehan, L.R.C.S.I.

Elliott, Charles Bolton, L. *et* L.Mid. R.C.P. (Edin.), M.R.C.S. (Eng.), to be Medical Officer of Health, Geraldton.

Fraser, Dr. McCalman John, to be Acting District Medical Officer, Acting Quarantine Officer and Acting Public Vaccinator at Broome during the absence of Dr. Graham Blick.

Hope, J. W., F.R.C.P. (Edin.), L.S.A. (Lond.), to be Medical Officer of Health, Fremantle.

Kelly, Dr. J. P., to be Acting Resident Physician at the Kalgoorlie Hospital during the absence on leave of Dr. James Thompson.

Ramsay, James Edward, M.B. (Lond.), to be Honorary Pathologist and Bacteriologist to the Perth Public Hospital.

VICTORIA.

Stawell, Richard R., M.D. (Melb.), to be Honorary Physician to Out-patients, Melbourne Hospital.

SOUTH AUSTRALIA.

Corbin, John, M.R.C.S. (Eng.), L.R.C.P. (Lond.), to be a Public Vaccinator.

Dawes, R. St. M., L.R.C.P., M.R.C.S., to be Health Officer of Gawler South.

Johnson, Edward Angas, M.D., to practise Anatomy at the School of Anatomy, the University of Adelaide.

Stirling, Professor Edward Charles, C.M.G., F.R.S., to be Honorary Consulting Surgeon at the Adelaide Hospital.

QUEENSLAND.

Maxwell, Charles, M.B., B.S. (Univ. Melb.), to be Health Officer and Medical Officer at Burketown.

PROCEEDINGS OF AUSTRALASIAN MEDICAL BOARDS.

QUEENSLAND.

Hart, Basil Lloyd, M.B. 1900, M.Ch. (Univ. Syd.), 1901.
Webb, Fritz William, M.B., M.Ch. (Univ. Syd.), 1901.

Additional Qualification.

Michod, F. A. H., M.B. (Univ. Lond.), 1898.

Republication.

Cooper, Hugh Erskine, L.S.A. (Lond.), 1893.

WEST AUSTRALIA.

Annand, George, M.B. (Melb.), 1872; M.D. (Melb.), 1875; M.R.C.S. (Eng.), 1878; L. & L.M.R.C.P. (Edin.), 1878; L. & L.M.R.C.S. (Edin.), 1878; B.S. (Melb.), 1879.
Forshaw, William Joseph, M.B. (Melb.), 1901; B.S. (Melb.), 1902.
Myles, William Saunders, M.B., Ch.B. (Univ. Dubl.), 1899.
Shackell, Percy Moira, M.B. (Melb.), 1900; B.S. (Melb.), 1901.

TASMANIA.

Cummings, Harold Lytton, M.R.C.S. (Eng.), 1884; L.R.C.P. (Lond.), 1884.

SOUTH AUSTRALIA.

Clarke, Philip Sylvester, M.B., B.S. (Syd.), 1903.
Corbin, John, M.R.C.S. (Eng.), L.R.C.P. (Lond.), 1902.
Marsden, Walter Cecil, L.R.C.P. & S. (Edin.), 1901.
Ulbrich, Waldemar Harold, B.S. (Melb.), 1901.

NEW SOUTH WALES.

Berry, Robert Lewers, M.R.C.S. (Eng.), 1893, L.R.C.P. (Lond.), 1893, L.S.A. (Lond.), 1892.

For Additional Registration.

Dansey, St. John Warburton, Ch.M. (Syd.), 1903.
Doudney, Edwin, L.R.C.P. (Edin.), 1877.
Hepsley, Percy Leslie, M.Ch. Syd., 1903.
Moncrief, Edward Woods, Ch.M. Syd., 1902.
Plomley, Morris James, M.Ch. (Syd.), 1903.
Sandes, Francis Percival, M.D. (Syd.), 1903.
Smith, Stewart Arthur, Ch.M. (Syd.), 1903.
Suckling, Frank Martin, M.Ch. (Syd.), 1903

BIRTHS, MARRIAGE AND DEATHS.

BIRTHS.

ASHTON-SHORTER.—May 7, at "Waverton," Norwood-street, Petersham, to Dr. and Mrs. Ashton-Shorter—a daughter.

GREEN.—On May 15th, at Bendigo, Victoria, the wife of Dr T. E. Green—a daughter.

HODGSON.—On June 7th, at Fitzroy, the wife of Dr. Thomas Hodgson—a daughter.

McEVOY.—On May 24th, the wife of J. J. Stuart McEvoy, M.B., of "Beenleigh"—a daughter.

REIACH.—On March 5th, at Molong, N.S.W., the wife of James Reiach, M.B., C.M (Univ. Edin.)—a daughter.

SABELBERG.—On April 7th, at "Ajmere," Violet Town, Victoria, the wife of Charles J. Sabelberg, M.B., Ch.B.—a daughter.

MARRIAGE.

HORSFALL—STOKES.—April 21st, 1903, at All Souls', Leichhardt, by the Rev. Thos. Holme, assisted by the Rev. Charles Baber, Alfred Herbert Horsfall, D.S.O., M.B. & Ch.B., son of the late James Horsfall, of Melbourne, to Gertrude Emily, daughter of the late Colonel C. F. Stokes, A.D.C., of Newcastle and Sydney.

DEATHS.

ELLISON.—On June 6th, at the residence of Mrs. K. Catherwood, 35 Melville-street, Hawthorn, John Ellison, M.D., formerly of Williamstown, aged 41 years.

FULLERTON.—On June 6th, suddenly, at 57 Darlinghurst-road, Julia Adderton Fullerton, aged 69, widow of the late George Fullerton, M.D.

PHILIP.—On May 30th, 1903, at Jersey-road, Paddington, Dr. Alexander Philip, in his 56th year.

ROBERTSON.—On May 25th, at 31 Duncan-street, Brisbane, Cora, wife of Dr. A. W. Robertson.

BOOKS RECEIVED.

Operative Surgery. By Herbert W. Allingham, F.R.C.S. London: Baillière, Tindall & Cox. Sydney: L. Bruck. Demy 8to. Price, 7s 6d net. 1903.

Nerves in Disorder: A Plea for Rational Treatment. By Alfred T. Schofield, M.D. London: Messrs. Hodder & Stoughton. Sydney: Messrs. Angus & Robertson. 1903. Price, 3s 6d net.

The Internal Secretions and the Principles of Medicine. By C. E. de M. Sajous, M.D. Vol. 1st, with 42 illustrations. Philadelphia: F. A. Davis Company. 1903.

The Symptomology and Etiology of Certain Types of Ureitis. By G. E. de Schweinitz, M.D. Chicago: American Medical Association Press. 1902.

LETTERS AND OTHER COMMUNICATIONS HAVE BEEN RECEIVED FROM:—

Drs. W. R. Fox, North Fitzroy; A. A. Palmer, Sydney; B. B Ham, Brisbane; F. G. Griffiths, Gundagai; R. Cope, Glen Innes; A. B. Brockway, Brisbane; A. E. Randell, Perth; J. B. Gunson, Adelaide; Abramowski, Mildura.

HUDSON'S "EUMENTHOL" JUJUBES (Registered) are a Gum Jujube containing the active constituents of well-known Antiseptics, Eucalyptol, Thymus Vulg., Pinus Sylvestris, Mentha Arv., with Benzo-Borate of Sodium, etc., and exhibit the antiseptic properties in a fragrant and efficient form. Sold by all chemists; tins, 1s 6d. Are Antiseptic, Prophylactic, reduce Sensibility of Mucous Membrane. Mr. W. A. Dixon, F.I.C., F.C.S., Public Analyst of Sydney, after making exhaustive tests, says:—"There is no doubt but that 'Eumenthol' Jujubes have a wonderful effect in the destruction of bacteria and preventing their growth. . . . I have made a comparative test of 'Eumenthol'. Essence and Creosote, and find that there is little difference in their bactericidal action."

Digitized by Google

AUSTRALASIAN MEDICAL GAZETTE.

MECHANISM OF THE PAROXYSMAL NEUROSES.

By Francis Hare, M.D., Consulting Physician, Brisbane General Hospital, Inspector of Hospitals, Queensland.

THE disorders termed by Edward Liveing paroxysmal neuroses constitute a well defined class. The commonest, and therefore the most important, of these are migraine, asthma, epilepsy, gastralgia and functional angina pectoris. To these might perhaps be added Raynaud's disease and many others less common and less well defined. That all these affections are closely inter-related has long been known, and the inter-relation has usually been regarded as one of community of causation. Liveing says: "The pathology of megrim is in the main the pathology of the whole group of disorders to which it belongs."[1]

It will be unnecessary to recall the large accumulation of authenticated evidence bearing on this subject. It will suffice to state that migraine, asthma, epilepsy, gastralgia, angina pectoris, spasmodic croup, neuralgias of various kinds and distributions, tic douloureux, pleurodynia, insanity and various other named and unnamed nervous affections have at different times been observed to be interchangeable or to alternate with each other, not only during the course of hereditary transmission, though that is sufficiently marked, but also in the same individual at different periods of his life; also that transitional forms of all degrees and kinds between almost any pair in the group have been observed, all of which facts are attested by professional witnesses whose powers of observation and integrity are beyond all question.[2]

The works of Trousseau, Liveing and contemporary writers teem with illustrations of the "alternation of the neuroses"; modern text-books notice them but casually, seeming at times to regard them in the light of medical curiosities. Yet such alternations are as frequent and conspicuous to-day as in the early and middle portions of the nineteenth century. To what must we ascribe the fading significance attached in medical literature to these common and highly suggestive occurrences? Almost certainly, it seems to me, to a progressive narrowing in the pathological field of vision, the inevitable result of extreme specialisation and of the anatomical classification of disease. Migraine and epilepsy tend to pass into the domain of the neurologist; asthma is claimed by the chest physician or by the rhinologist; angina pectoris is assigned to the physician who makes a special study of the heart; gastralgia to him who concerns himself especially with disorders of the digestive organs; and so on. Hence, as time passes pathological antagonisms become accentuated, pathological affinities blurred; we drift farther from common factors and from the supremely important question of primary causation.

In these papers I propose, without entering on the question of primary causation, to consider the commonest paroxysmal neuroses with a view to determine to what extent they are inter-related as regards their mechanism.

During a paroxysm of any of these affections, extensive vaso-constriction, conspicuously of the surface and especially of the surface of the extremities, is, so far as I have observed or can infer from the writings of others, almost invariable. Such vaso-constriction tends to cause a rise in the general blood pressure. This has been observed during the paroxysms of most of these disorders, but it does not seem to be invariable. If there is an extensive area of vaso-constriction, unassociated with a rise in the general blood pressure, some compensating factor must be intervening. Such may be: (1) A diminution in the quantity of blood; (2) an area of vaso-dilation; or (3) a modification in the heart-beat whereby the work accomplished is reduced.

A diminution in the quantity of blood, to be effectual in preventing a rise of general blood pressure from following vaso-constriction, must be rapid, and this can only occur from hæmorrhage. Sudden hæmorrhage is by no means unknown during neurosal paroxysms, but it is exceptional.

Compensation for vaso-constriction by vaso-dilation, though apparently ignored for the most part in the domain of pathology, is well recognised in that of physiology. Stewart says: "Stimulation of the cut end of the sciatic causes . . . . extensive vaso-constriction. This certainly involves the *splanchnic area;* but superficial parts, as the lips, may be seen to be flushed with blood. In asphyxia . . . . this antagonism is still better marked: the cutaneous vessels are widely dilated and engorged, the face is livid, but the abdominal organs are pale and bloodless (Heidenhain). . . . . The blood supply of the organs is always shifting with the calls upon them. Now it is the actively-digesting stomach and the actively secreting glands of the alimentary tract which must be fed with a full stream of blood. . . . . Again, it is the working muscles of

Digitized by Google

the legs or of the arms that need the chief blood supply. But whatever the call may be, the vaso-motor mechanism is able in health to answer it by bringing about a widening of the small arteries of the part which needs more blood and a compensatory narrowing of the vessels of other parts whose needs are not so great."[3] In this quotation most stress is laid upon compensation for vaso-dilation by vaso-constriction; but the converse does not call for any stretch of the imagination, for manifestly the opposing vascular conditions are correlative.

In the absence or inadequacy of compensatory vaso-dilation, vaso-constriction will tend to cause a rise in the general blood pressure; and conversely, in the absence or inadequacy of compensatory vaso-constriction, vaso-dilation will tend to cause a fall in the general blood pressure. In both cases cardiac compensation will be called for. Leonard Hill says: "If all the cardiac nerves be intact, a rise of arterial pressure always slows the heart, and a fall accelerates it. This mechanism, first recognised by Marey, is of great importance, for by its means the constancy of the arterial pressure is maintained. So long as the vagi are intact the arterial pressure cannot be greatly raised."[4]

Does not confusion sometimes arise through a tendency to infer from a constricted radial a rise in the general blood pressure? I have seen it stated that Marey's law "does not work in practice"; and Oliver says: "Though I have made a large number of observations in which the pulse-rate was carefully recorded by the side of the measurements of the radial calibre, I have failed to discover any definite relation (direct or indirect) between the two."[5] To expect such definite relation seems to me tantamount to the assumption that the calibre of the radial at any one time is an index of the tone of the arterial system generally: that vaso-constriction and vaso-dilation fluctuate proportionately and in the same direction throughout the body. But this, as we have seen, is untenable; and, therefore, it seems to me that a definite or constant relation between the calibre of the radial and the rate of the pulse is to be expected only in the absence of compensation by the correlative vascular condition in other areas. Until such has been excluded we must be premature in questioning the general applicability of Marey's law; and it seems more reasonable—it will certainly prove more profitable—in cases where a constricted radial is unassociated with infrequency of the pulse to assume provisionally the existence of some invisible area of vaso-dilation, and to search for the clinical manifestations of that vascular condition. And as we proceed with investigation on these lines we shall, I feel convinced, continue to gain confidence in the truth of the axiom that "the pulse-rate is inversely as the general blood pressure," not only in the physiological but in the pathological domain.

I shall now attempt to show (1) that vaso-motor action is an essential factor in many of the commonest and best-known paroxysmal neuroses; (2) that vaso-constriction occurs in all, and is usually primary; and (3) that the phenomena peculiar to each neurosis are determined for the most part by the correlative vascular or cardiac condition, whether this consists of vaso-dilation, of inhibition of the heart-beat, or of both.

MIGRAINE.

Vaso-constriction.—During a paroxysm of migraine, widespread vaso-constriction of the cutaneous area is commonly conspicuous. Many writers have pointed out that the superficial arteries are palpably smaller than usual. Möllendorff noted "the icy coldness of the hands and feet, and shivering of the surface generally;"[6] and in some of my cases shivering amounted to actual rigor. The vaso-constriction is usually most marked in the extremities, but the face may be affected. In Du Bois-Reymond's own case the superficial temporal of the affected side was constricted. This led him to ascribe the disorder to tetanus of the corresponding sympathetic nerves, and to locate the pain in the nerves of the contracting vessel.

Vaso-dilation. — The vaso-constriction of migraine may be regarded as compensated to some extent, if not always fully, by an area of intrinsic vaso-dilation, affecting some part of the cranium. This vaso-dilation was pointed out by Möllendorff, who regarded it as due to a paralytic condition of the sympathetic, his theory thus becoming "the converse to that of Du Bois-Reymond."[7] In support of the view that this vaso-dilation is the proximate cause of the pain, Möllendorff adduces the throbbing character of the pain, the aggravation of this symptom "which follows stooping forward and the measure of relief afforded by lying back."[8] He lays stress upon the fact that "the pain and tension . . . are also felt deeply in the interior of the head, in the parts supplied by the internal carotid, and where from their small extensibility and rigid surroundings a trifling increase in their fluid contents would be felt as tension."[9] Finally he points out that the vaso-dilation may often be seen. Of one case he says: "During the attacks the background of the eye on the suffering side was of a bright scarlet red, the optic papilla red and œdematous, the arteria and vena centralis retinæ enlarged, the latter knotty and very tortuous."[10]

Digitized by Google

Mechanism of the pain.—To me it seems unnecessary to search further for the proximate factor of the pain in migraine. The vaso-constriction which Du Bois-Reymond observed in his own temporal is the usual condition of the arteries of the extremities, and the extremities are never the seat of pain in migraine. On the other hand, in an extensive area of vaso-constriction, combined with vaso-dilation localised in an area situated anatomically as is the peri-cranium or dura mater, we have the essentials for the maximum of vascular distension and nerve pressure in the latter area.

On the hypothesis that vascular distension due to local vaso-dilation, combined with widespread vaso-constriction, is the proximate factor of the pain, we can correlate and explain very many of the isolated observations which have been made concerning migraine. Anything which reduces the vascular distension in the dilated area relieves the pain, and anything which increases the vascular distension in the dilated area might be reduced: (1) By pressure on the main arterial trunk supplying the part; (2) by promoting vaso-constriction in the small arteries of the part; (3) by promoting vaso-dilation elsewhere or generally; (4) by reducing the force or frequency of the heart beat; and (5) by reducing the total amount of blood in the circulation. On the other hand the vascular distension in the dilated area might be increased: (1) By pressure on arterial trunks supplying collateral areas; (2) by increasing vaso-dilation in the part; (3) by increasing vaso-constriction elsewhere or generally; (4) by increasing the force or frequency of the heart-beat; and (5) by increasing the total amount of blood in the circulation.

Conformably with these theoretical anticipations, we may arrange the following clinical observations:—

1. In cases associated with dilation of the temporal artery on the affected side, pressure on this vessel always affords relief which, however, may be complete or incomplete. When the relief is incomplete, we may assume that the temporal does not control the whole of the dilated area.

In cases associated with constriction of the temporal artery on the affected side, pressure on the vessel affords no relief: it may, on the contrary, increase the pain. Here we have only to assume that the dilated area lies in the distribution of some artery which arises behind the superficial temporal, such, for example, as the internal maxillary, the occipital, or the internal carotid. This assumption will fit such cases as Du Bois-Reymond's[11], in which the skin of the face remains pale and cold throughout the paroxysm, and regains its normal colour and temperature only when this abates.

Pressure on the common carotid of the affected side completely removes the pain in practically all cases; attention was called to this fact first by Parry[12], later by Möllendorff and others.

On the other hand, pressure on the common carotid of the opposite side increases the pain.

My own observations on the effects of compressing arteries during migraine paroxysms may be thus summarised. (*a*) In unilateral migraine pressure on the corresponding common carotid invariably, at once and completely removes the pain. (*b*) In bilateral migraine pressure on either common carotid removes the pain on the corresponding side, and increases the pain on the opposite side: by alternately compressing the right and left common carotid, the pain may be rendered hemi-cranial on the left and right side alternately; I have not tried the effect of compressing both common carotids simultaneously. (*c*) In a case of bilateral occipital migraine, immediate relief was afforded by compressing both occipital arteries; and the pain could be rendered unilateral by compressing one occipital. (*d*) In a case of intense peri-cranial migraine, complete cessation of all pain followed simultaneous compression of both temporals and both occipitals; the pain was rendered unilateral by simultaneous pressure on the temporal and occipital of one side, or by pressure on one common carotid: it became limited to the posterior portion of the cranium by pressure on both temporals, and to the anterior portion of the cranium by pressure on both occipitals; finally, pressure on any one of the named arteries relieved the pain in the area of distribution of that artery. (*e*) In a case of severe frontal bilateral migraine, the patient discovered for herself that pressure on both angular arteries (which were throbbing violently) gave nearly complete relief; she would sit for hours compressing the roof of the nose between her finger and thumb, and had thought of devising a special padded clip for the purpose. (*f*) In many cases general compression of the painful area of the scalp gave much relief; this has been noted by many writers; cases so relieved are doubtless peri-cranial. Many of the observations here set down seem to apply to the great majority of headaches, whether typically migrainous or other.

2. In some cases the application of cold lotions or the ice-cap to the scalp affords almost complete relief; here, presumably, the dilated area is peri-cranial, and the result is attained through

Digitized by Google

direct vaso-constriction of the small arteries of the part. One of my patients who for years had found marked relief from his violent migraine pain by sitting in a hot bath up to his neck discovered later that what little headache remained under these circumstances was absolutely dispersed by swathing his head in cloths wrung out of iced water.

On the other hand, cases are to be seen in which the application of heat to the scalp materially increases the pain: such are, presumably, peri-cranial.

3. Numerous observations testify to the relief afforded by promoting vaso-dilation in areas other than the seat of pain, or generally.

Liveing quotes M. Piorry to the effect that "une vive stimulation des pirds par l'eau chaude or par la proximité d'un brasier, a quelquefois arrêté brusquement la migraine."[13] Graves found great relief in the headaches of young women to follow immersion of "the legs as far as the knees in hot water."[14] Haig found relief from his migraine by sitting over a fire. Immersing the arms in hot water will often give ease. Several of my cases of migraine take a full-length hot bath when attacked: they remain in a considerable time, and enjoy for the most part almost complete temporary relief; but the pain recurs (one thinks it is actually worse) when the immersion is over. Dry cupping over the nape of the neck is another means of relief in migraine, and in headaches generally; and I have demonstrated, to my own satisfaction at least, that the relief so afforded is commensurate with the number, size and degree of exhaustion of the cups. Haig used to find that a good plate of roast beef and potatoes gave much temporary relief from his migraine; and it is clear that the large vaso-dilation which occurs in the gastric and other digestive organs during alimentation will relieve materially the strain on the migrainous area. One of my patients obtains relief, doubtless through the same vascular change, by drinking water as hot as she is able to swallow. Nitrate of amyl promotes general vaso-dilation; and Lauder Brunton says: "As migraine is generally connected with vascular spasm, I employed the nitrate of amyl in headache, and found that frequently though not invariably it relieved the pain."[15] Nitro-glycerine is another well-known vaso-dilator; and Gowers says that this is the drug which in the majority of cases has the most beneficial influence on migraine.[16]

Leonard Hill says violent exercise raises the arterial pressure by about 20 mm.; "this lasts for about 15 minutes and is then followed by a fall."[17] This secondary fact is in all probability due in part at least to vaso-dilation occurring in the functionally active muscular area. But in whatsoever way produced the fall in blood pressure will relieve the strain upon the dilated cranial area, and it is a matter of common observation that exercise disperses many headaches, and that even formal migraine paroxysms may be materially abbreviated by sustained muscular exertion. Liveing refers to many cases, amongst them that of Du Bois-Reymond, in which migraine was prevented, averted or reduced in severity by systematic physical exercise.[18]

Broadbent says: "Arterial relaxation is the condition of the vessels characteristic of pyrexia."[19] Excluding the initial stages of most fevers and fevers associated with rigors, the vaso-dilation is more or less general and the general blood pressure low. Hence if, as we are assuming, vaso-constriction is essential for the production of migraine in most cases, we shall expect to find this recurrent neurosis in abeyance during the pyrexial state, except, perhaps, during the initial stages and in fevers associated with recurring rigors.

Now, acute gout is a recurring pyrexia, and innumerable instances can be found in medical literature in which acute gout has replaced migraine permanently or for longer or shorter periods; but I can find hardly any reference to the capacity of pyrexia, other than gout, to interrupt during its continuance the recurrence of migraine paroxysms. Both Liveing and Trousseau seemed to have overlooked the fact, and yet, so far as I know, such interruption occurs *almost invariably*.

In upwards of 2000 cases of typhoid treated by myself I can call to mind no attack of migraine during the continuance of distinct pyrexia. Such a negative may be regarded as valueless; none of these patients may have been subject to migraine, and it may be that migraine occurred but was unrecorded mentally or in the notes; but I have also much positive evidence bearing on the point. I have questioned a large number of migraine sufferers, most of whom had suffered in the past from pyrexia of some kind, but almost none can remember an attack of migraine concurrent with pyrexia; indeed the majority had themselves observed that headaches ceased under these circumstances. Thus I recently met a clergyman whom I had treated for a long attack of typhoid fever 15 years ago. He has been a sufferer from migraine all his life, and he reminded me that one of his few intervals of freedom was during his attack of typhoid. He added that the headaches recurred during early convalescence. In another case, migraine occurring once a week, ceased during an attack of subacute bronchitis lasting two months, but

Digitized by Google

recurred as the chest affection disappeared. Later this patient contracted phthisis of a markedly pyrexial type, after which he finally ceased to suffer from headache.

These cases are mentioned merely as examples: the antagonism between migraine and pyrexia seems to me practically complete (excluding rigors), and I could adduce numbers of cases did space permit. But this is unnecessary, for I feel sure that most practitioners will be able to recall numerous cases in point—cases which on account of their seeming meaninglessness made but little impression at the time. Even the short and mild pyrexia which accompanies a feverish cold is sufficient in many cases to avert a migraine paroxysm which is impending; and the same is true of tonsillitis, erysipelas, septic and inflammatory fevers of any sort.

Quite recently Walter Whitehead has made the somewhat startling statement that during the last five and twenty years he has "never failed to treat successfully the most inveterate and severe cases of migraine by introduction of an ordinary tape seton through the skin at the back of the neck"[20]; he advises that the seton be worn uninterruptedly for three months at least in the first instance, and be repeated if the attacks recur. He advances no theory as to the *rationale* of this method of treatment.

In discussing the subject with Dr. Hawkes, of Brisbane, there seemed no room for doubt that the slight septic pyrexia which invariably follows the establishment of suppuration is the active factor in the treatment of migraine by seton. Accordingly in the cases in which we have adopted this procedure the question of site has been left altogether to the convenience of the patient Many cases have been treated, not only of formal migraine, but of headaches of severe clinical types and of other affections more or less closely related to migraine, and, as a result of our experience, we are in a position to confirm very largely the original statement of Whitehead.

The first case in which we tried the seton for migraine will serve as a sample of the series to be published hereafter. The patient, a hospital nurse, aged 39, had suffered from recurrent migraine since she was a young girl. The attacks were severe and typical, being preceded by hemianopia and brilliant fortification spectra, and accompanied by intense hemi-cranial pain, complete anorexia and vomiting. The seton was inserted by Dr. Hawkes in the left infra-mammary region on September 2nd, 1901; the patient removed it herself on May 15th, 1902, having thus worn it uninterruptedly for a period of 8½ months.

Before the insertion of the seton, the rectal temperature for a week had oscillated between a minimum of 97·8°F. in the morning, and a maximum of 99·0°F. in the evening; the migraine attacks had been recurring for some months every 7 or 10 days, and they had been especially severe and prolonged, lasting from 24 to 36 hours.

After insertion, the rectal temperature slowly rose, until at the end of a week and thereafter it oscillated between a minimum of 98·0°F. in the morning and a maximum of 100·6°F. in the evening; more commonly the oscillations were included between 98·6°F. and 100·0°F.; the normal rise of temperature during the premenstrual week, and the normal fall during the menstrual week, continued to be observable on the chart, though on a higher plane.

The migraine attacks underwent a marked modification. There was no attack until September 6th, when she had a severe and typical one, lasting 48 hours; the interval preceding this attack, namely 50 days, was the longest she had enjoyed for three years. On October 17th she had some of the premonitory symptoms of an attack, namely, drowsiness, chilliness, and flashes of light before the eyes, but no headache or other symptoms. On October 23rd a slight short headache without digestive symptoms. On November 28th a migraine lasting 12 hours, but of moderate severity. On December 8th a slight headache lasting 24 hours. On December 24th a slight headache. On January 9th, 1902, a slight headache. On January 21st migraine preceded by drowsiness, and associated with anorexia and vomiting; duration 12 hours, pain moderate only. February 3rd moderate headache, lasting 6 hours. March 4th very slight headache, lasting 24 hours. March 23rd very slight headache, lasting a few hours. May 15th seton removed.

To sum up, there occurred during the wearing of the seton only 11 attacks, more or less migrainous, in a period of 255 days; or less than one attack in 23 days, against 1 in 7 or 10 days previously. But the diminution in the severity of the attacks was even more conspicuous than the diminution in their number. With the exception of the first, on October 6th—which, indeed, was if anything more than usually severe—all the attacks were slight, and most of them, to use the patient's own words, barely worth mentioning. The patient's general health throughout this time was excellent, and she received many compliments upon the improvement in her personal appearance.

After removal of the seton on May 15th the temperature rose steadily for a week, to a

Digitized by Google

minimum in the morning of 99·2°F., and a maximum in the evening of 100·8°F., oscillating between these points for the following week, and then subsiding to the normal; the rise was probably due to septic retention in the track of the seton. On June 1st there was a rather severe migraine, with vomiting, and on June 13th the patient developed measles. After this she remained free from attacks until July 27th, when there was a very slight headache; and again she remained free until August 19th, when there was another very slight headache. The patient then went home to England, and I lost sight of her. On the whole, there can be no doubt that she continued to improve after the removal of the seton, though some of the freedom she then enjoyed may have been due to the attack of measles.

While it is true that conditions which promote vaso-dilation in non-migrainous areas or generally tend to prevent or modify migraine paroxysms, and to relieve the pain of already existing attacks, it is equally true that conditions which promote vaso-constriction in non-migrainous areas or generally tend to precipitate migraine paroxysms or to intensify the pain of already existing attacks. Exposure to cold has often precipitated an impending migraine, and the effect of cold air, general cold baths, and cold applications, except when directly applied to the painful area, is to intensify the suffering during attacks.

Even in individuals not predisposed to migraine, headaches indistinguishable from the headaches of peri-cranial migraine may sometimes be induced by measures which promote sudden extensive vaso-constriction of the trunk and extremities, and thus throw a sudden increase of vascular pressure upon the cranial area. The most violent headache from which the writer ever suffered was caused through his slipping inadvertently into a rather cold swimming bath feet foremost. Vertical pain commenced with the suddenness of a blow, synchronously with the closing of the water over his head, and persisted with diminishing intensity for several hours.

An exception to the general rule that "arterial relaxation is the condition of the vessels characteristic of pyrexia," occurs during pyrexial rigors. During rigor there is palpably a widespread vaso-constriction of the cutaneous area. Such vaso-constriction would tend to cause a rise in the general blood pressure, but this is found not to occur. Broadbent says that even in the cold stage of the ague fit, while the cutaneous arteries are constricted and the skin cold and pallid, "the actual pressure within the vessel is not very great, and the wave can be extinguished without much difficulty."[19] Manifestly some compensating factor intervenes to prevent the rise of general blood pressure. Such might be some inhibition of the heart-beat or an area of vaso-dilation. The first may be at once excluded since the pulse rate is increased. We are left, therefore, with the second, and there can be little doubt that the vaso-dilation, anticipating a rise in general blood pressure, occupies the functionally active muscular layer of the body.

If this is true, then migraine paroxysms and rigors are closely related in their mechanism. They agree in presenting a widespread area of vaso-constriction, compensated by an area of vaso-dilation. It will not be surprising, therefore, if we find that in fevers associated with rigors we have an exception to the general rule that pyrexia and migraine are antagonistic.

The following case, communicated to me by Dr. Hawkes, is confirmatory of this anticipation. The patient was an habitual migraine sufferer, and contracted puerperal pyæmia. During the fever migrainous attacks, indistinguishable from those from which she was accustomed to suffer, coincided with and were limited to the times of the recurring rigors of the disease. It is not very difficult to conceive that the vaso-dilation, compensatory of the vaso-constriction of rigor and rapidly rising temperature, might in such a case fall into its long accustomed groove wholly or in part, and so occasion headache in place of, or in addition to, rigor, and it may be observed that in some cases of migraine, unassociated with fever, the cutaneous anæmia is excessive, and that the chilliness so caused is associated with shivering amounting in some cases to actual rigor.

Those considerations seem to me to elucidate the relation of migraine to malaria; for Liveing describes a malarial migraine, "Hemicranialis intermittens," or "Browague," chiefly on the authority of Macculloch,[20] and Fagge refers on the same authority to a case of "double tertian ague, in which the headache and the ague fit occurred regularly on alternate days."[21]

4. Reduction in the force of the heart-beat may be accompanied by relief from the pain of migraine. In some the onset of nausea and vomiting is the signal for the abatement of the paroxysm;[22] and nausea, it will be admitted, is commonly associated with reduced systolic force. In one of my patients an unusually severe paroxysm was apt to be accompanied by marked faintness: on one occasion actual syncope supervened. The faintness always brought considerable relief from pain; and it is difficult in such a case not to sympathise with the conception of Parry that the cardiac weakness is conservative.[23]

Digitized by Google

On the other hand, anything which increases the force of the heart-beat increases the pain; hence, alcohol and ammonia are harmful as a rule, and the migrainous patient instinctively avoids exertion of any kind during a paroxysm.

We are arguing that in migraine extensive vaso-constriction tends to be compensated by localised vaso-dilation. The two may be in accurate counterpoise; in this case the general blood pressure, and consequently the pulse-rate, will remain unaltered. But vaso-dilation may be inadequate to compensate for vaso-constriction: in this case the general blood pressure will tend to rise, and the only remaining mode of compensation will be a modification of the heart-beat. Hence cases occur in which the frequency of the pulse is reduced. Möllendorff says: "From the beginning, and during the continuation of the hemicrania, the rate of the cardiac pulsations is considerably lowered, the normal pulse-rate of from 72 to 76 beats per minute sinking to from 56 to 48."[24]

But simple slowing is not the only cardiac modification which may be adopted by the organism to reinforce inadequate vaso-dilation. The heart beats may be weakened, as already pointed out, and in two of my own cases and in one which I saw in consultation regular intermittence of the pulse, present at no other time, occurred during each migraine paroxysm. It may be worth while to recall here the fact that in vagus inhibition of the heart-beat the action of this organ may be slowed or weakened or both; it is never increased in force.[27]

On the other hand, vaso-dilation may be in excess; hence cases occur in which the frequency of the pulse is increased. Labarrague says the pulse "becomes hard and frequent."[28] Tissol says: "The pulse when the suffering is severe is always hard and quick; towards the close it subsides."[29] All authors seem to agree that the pulse is contracted, but I have seen one case in which both radials were dilated and the hands hot and swollen. Here, presumably, vaso-constriction occupied some unusual position. None of these modifications in the pulse rate contravene Marey's law that "the rate of the beat is in inverse ratio to the arterial pressure," but some of them appear to do so, so long as we continue to ignore the meaning and influence of vaso-dilation.

5. The effect of a reduction in the total amount of blood to disperse migraine is seen in hæmorrhage of all kinds, and naturally the effect is most marked when the blood comes from the dilated area or its immediate proximity, as in epistaxis. Liveing quotes the following typical case of Tissol's:—"I once saw a youth who had several attacks [migraine] between the ages of 12 and 16; then he began to suffer frequent bleedings of the nose and the migraine disappeared. At 19 the bleeding ceased and the migraine returned; but after six months, the hæmorrhage having returned, the migraines terminated."[30]

Graves relates the case of a young lady on whom, after repeated attacks of headache, Stokes employed venesection, *ad deliquium*, during a violent paroxysm; the operation was followed by immediate relief.[31]

The writer of these pages, when a schoolboy, suffered from irregularly recurrent attacks of intense headache, each attack usually lasting a week. On one occasion, after the pain had lasted a few hours, profuse epistaxis occurred, and was immediately succeeded by complete relief, which lasted for several months. At the outset of the next attack he requested the visiting surgeon to bleed him, but a tonic was prescribed instead. However, a few self-administered taps on the nose brought on the wished-for epistaxis, and this was again succeeded by a prolonged period of freedom. Several times subsequently he treated himself in the same way and always successfully.

It is hardly possible to demonstrate the effect of an increase in the total amount of blood in the body upon migraine paroxysms; but I have seen one case who became worse as he became "plethoric." It is not, however, admitted generally that acquired plethora implies an increase in the amount of blood.

As regards the effect of an increase in the amount of blood upon an existing migraine paroxysm, this could only be investigated by transfusion, which would, of course, be unjustifiable.

Some objections to the vaso-motor theory.—Liveing regarded vaso-dilation in migraine as only "one among many phenomena of the paroxysm, and by no means as essential or the cause of the rest."[32] He says: "The vascular phenomena are themselves the most variable and inconstant of the series"; that he has "repeatedly watched the severest paroxysm of typical megrim without being able to detect any of those indications of hyperæmia to which Dr. Möllendorff refers"[33]; that he has "carefully examined the fundus of the eye with the ophthalmoscope in a severe hemi-cranial case, where the visual phenomena were highly developed, and where, if at all, we should expect to find the appearances Dr. Möllendorff describes"[34]; and all with negative results.

But the whole of this argument succeeds in proving only that vaso-dilation is not always visible; and this may be freely admitted. But it does not follow that vaso-dilation is non-existent, and it is certainly not in cases where

Digitized by Google

the visual phenomena are well developed, but rather in cases where tensile pain is felt in the globe of the eye, that we should expect to find vaso-dilation of the intra-ocular arteries. We have no right to say that the vascular phenomena of migraine are inconstant because they are variable in distribution and degree. In my experience, extensive areas of vaso-constriction in paroxysms of any intensity are amongst the most constant of all the manifestations of the disorders, and, considering the anatomical features of the cranium, it is clearly impossible to exclude all cranial areas of vaso-dilation. In one of my cases there was during most paroxysms no visible vaso-dilation. All over the trunk and extremities there was extreme cutaneous anæmia, and the superficial arteries were manifestly constricted; but on some occasions the hemi-cranial pain extended to the corresponding shoulder-blade, and whenever such occurred this part was found to be the seat of marked hyperæmia. Surely in such a case it is reasonable to infer that the cranial pain is associated with a vaso-dilation which is concealed from observation.

Liveing's view, and, indeed, all other views which deny the priority of the vascular changes over the pain, not only fail to account for, but hopelessly contravene, the fact that the pain of migraine ceases when the artery supplying the painful area is compressed and recommences when the pressure is removed. It is true Liveing attempts to parry this argument in the following way. He says[35]: "Since the ordinary pulsation of the arteries in cases where there is no obvious hyperæmia is painfully felt in consequence of the morbid sensibility of the parts, it is easy to understand that the relaxed and throbbing condition of the vessels described by Dr. Möllendorff, if present at the height of the paroxysm, might greatly aggravate the suffering, and under the same circumstances compression of the carotid might considerably relieve it."

But this is no question of "aggravation" and "considerable relief." Pressure on the common carotid of the affected side in hemicrania is accompanied by *instant and complete* relief, removal of the pressure by *instant and complete* return of the pain. This I have verified on numerous occasions. Möllendorff[36] says: "If the common carotid artery be forcibly compressed on the painful side at the level of the thyroid cartilage during the hemicranial paroxysm, so that the pulse in the temporal artery begins to fail, the headache vanishes as if by magic, the eye is livelily opened, the oppressed and suffering face brightens up and seems to inquire with an expression of delight, 'What has become of the pain?' Unfortunately, however, with the intermission of the compression, with the first full pulse-wave, the pain begins afresh. . . This experiment has infallibly succeeded with me in the case of all persons suffering from hemicrania whom I have had the opportunity of seeing in the attack." More than a century ago Parry described his experience, which was identical, in equally positive language.[37]

I submit that there is but one hypothesis which can explain these facts, and that is that there is in *all cases vaso-dilation at the seat of pain, and that the vaso-dilation is the proximate cause of the pain.* I am aware that cases have been described in which pressure on the common carotid of the affected side adds to the pain, although it is not pretended that such cases are common. For myself, I have searched for such in vain. I would venture to suggest, therefore, the possibility of a mistake having been made. It is evident that pressure directed to the carotid artery might, if inadequate or inaccurately applied, succeed only in blocking the venous return through the internal jugular vein, and so increase the vascular tension, and consequently the pain in the affected area.

The evidence in favour of the view that the pain of migraine is due to vaso-motor action seems complete; and, if so, it is highly probable that the other sensory symptoms, amongst them the initial symptoms often spoken of as the migrainous aura, own a similar mechanism. Gowers, in stating the case against the vaso-motor theory of migraine, says: [38]"The sensory symptoms must depend on deranged action of the sensory centres in some part of the brain. They indicate a combination of arrest of action and of over-action in the nerve cells concerned. In the language of modern pathology there is a combination of inhibition and discharge; the loss of sight, for instance, must be due to inhibitory arrest of action, the visual spectrum to discharge." I see no insuperable difficulty in believing that the derangements of nervous action in the sensory centres depend upon derangements in the blood supply. Contraction followed by dilation has been observed in adjacent visible arteries. Lauder Brunton and others have seen it in the superficial temporal, and Benson saw the inferior temporal artery of the retina undergoing slowly alternating dilations and contractions during an attack of migraine.[39]

Against the vaso-motor theory it has been argued that the contraction or dilation of the cerebral arteries must be general, and this was supported by the fact that until recently observation had "failed to demonstrate with certainty any special vaso-motor nerves or fibres directly governing cerebral vessels."[40] But Foster, writing in 1892, maintained that

Digitized by Google

the existence of special vaso-motor mechanisms would afford a more satisfactory explanation of many phenomena than was then available[41]; and since then it would seem as if the gap had been filled. William Hunter[42] reviews the work on this subject during recent years, and shows from his own microscopic observations that, while the vessels of the white matter are seemingly destitute of nerves, the vessels of the grey matter, whether of the cerebral convolutions or the cerobellum, midbrain, pons, medulla and cord, are surrounded by a dense network of delicate nerve-fibres, amounting in some cases to a continuous sheath. He refrains, however, from advancing any opinion as to the function of this nerve supply.

Gowers, though strongly maintaining the subordinacy of the vascular changes in migraine, refers incidentally to a case which seems to support directly the opposite view. After pointing out that the vascular disturbance in the brain may lead at times to vascular degeneration, he adds: "Hemianopia habitually preceded the headaches in a woman who, after reaching the degeneration period, found one day that the hemianopia persisted after the pain. It was permanent, and due, as was afterwards ascertained, to a lesion in the opposite cuneus."[43] If the permanent hemianopia was caused by the permanent vascular lesion, then it seems to me more than probable that the temporary hemianopia was caused by the temporary vascular changes which had been periodically recurrent over a long period of years.

The importance of vaso-motor action, and especially of vaso-dilation, is further attested by the occurrence of sudden choroidal hæmorrhage,[44] and of œdema and even "ecchymoses at the seat of the most intense pain."[45] Tissol refers to a case of migraine with hemianopia:[46] "It was no uncommon occurrence with her in the severe seizures for the violence of the spasm to occasion an extravasation of blood, rendering the skin of the forehead, eyelids and even the cheeks black and blue." Labarrague says: "The conjunctivæ are in certain cases ecchymosed;"[47] and Fagge refers to the case of Dr. J. J. Phillips, in whom a fatal attack of apoplexy occurred during the course of a headache indistinguishable from migraine.[48] Acute double glaucoma has occurred during an attack of migraine, which affection had been previously recurrent,[49] and it is reasonable to think that dilation of the central artery of the retina might determine this accident in an eye which is anatomically predisposed by hypermetropia.

References.—(1) On Megrim and Sick Headache, 1873, p. 224. (2) Megrim and Sick Headache, ed. Liveing 1873, pp. 212, 215, 217, 218, 219; also Clifford Allbutt, *Lancet*, vol. i., 1884, p. 508. (3) Manual of Physiology, 1899, pp. 162, 163. (4) Text Book of Physiology, Schafer, 1900, p. 56. (5) Pulse-gauging, George Oliver, 1897, p. 28. (6) Megrim and Sick Headache, 1873, Liveing, p. 311. (7) Ibid, 307. (8) Ibid, 309. (9) Ibid. (10) Ibid, 310. (11) Megrim and Sick Headache, 1873, p. 297. (12) Ibid, 309 *et seq.* (13) Megrim and Sick Headache, 1873, p. 470. (14) Clinical Medicine, New Sydenham Society, vol. ii., p. 350. (15) Pharmacology, Therapeutics and Materia Medica, p. 711. (16) Dis. Nerv. System, 1893, vol. ii., p. 854. (17) Text Book of Physiology, ed. Schafer, 1900, vol. ii., p. 80. (18) Megrim and Sick Headache, 1873, pp. 451, 452. (19) The Pulse, 18, p. 180. (20) *British Medical Journal*, Feb. 19, 1901, p. 335. (21) The Pulse, p. 189. (22) Megrim and Sick Headache, 1873, p. 405 *et seq.* (23) Text Book of Medicine, 1891, p. 782. (24) Megrim and Sick Headache, Liveing, 1873, pp. 368, 369, 371. (25) Ibid, p. 341, footnote. (26) Megrim and Sick Headache, Liveing, 1873, p. 311. (27) Text Book of Physiology, M. Foster, 1895, pp. 184, 296. (28) Megrim and Sick Headache, 1873, Liveing, p. 329. (29) Ibid, p. 330. (30) Ibid, pp. 325, 326. (31) Clin. Medicine, New Syd. Soc., vol. ii., p. 351. (32) Megrim and Sick Headache, 1873, p. 317. (33) Ibid, 315. (34) Ibid. (35) Megrim and Sick Headache, 1873, p. 317. (36) Ibid, pp. 309, 310. (37) Ibid, p. 276. (38) Dis. Nerve System, 1893, vol. ii., p. 850. (39) Trans. Ophth. Soc., 1898-9. (40) Text Book of Physiology (Foster), 1892, p. 1137. (41) Ibid., 1138. (42) *Journal of Physiology* (Jan. 14), 1901. (43) Noyes in the *Journal of Nervous and Mental Diseases*, 1869, quoted by Gowers; Dis. Nerv. Sys., 1893, vol. ii., p. 848. (44) Megrim and Sick Headache, Liveing, 1873, p. 328. (45) Dis. Nerv. Sys., Gowers, 1893, vol. ii., p. 844. (46) Megrim, etc., Liveing, p. 325. (47) Ibid. (48) Text Book of Medicine, 1891, vol. i, p. 784. (49) *British Med. Journal*, March 24, 1900, epitome, p. 45.

PRESIDENTIAL ADDRESS.

Delivered at the Annual Meeting of the South Australian Branch of the British Medical Association.

By Arch. A. Hamilton, B.A., M.B., B.Ch. (Dub.), Adelaide.

(*Abstract.*)

TWELVE months ago you did me the honour to place me in this chair, and now the time has come for me to bid you a formal farewell as your president.

I must thank you most sincerely for the trust which you reposed in me by conferring upon me the highest honour which the Branch can bestow on any of its members. It is forcibly borne in upon me that I was chosen president rather as a tribute to my long connection with the Branch than from any inherent fitness for the position on my part. I feel deeply grateful to you all for your kindly forbearance and tolerance of my shortcomings. I wish also to place on record my gratitude to the members of the Council, whose kindness, consideration, and wise advice have contributed so much to make my year of office an easy and pleasant one. To the secretary especially I wish to tender my hearty thanks for his never-failing courtesy and cordial co-operation. In Dr. Gunson's hands the affairs of the Branch go on so smoothly that we are all apt to forget what an amount of work he does, and how much we owe to him; by no means the lightest of the secretary's duties being to keep the president

Digitized by Google

up to the mark, and to prompt him to a due performance of his functions. The treasurer will recognise that, when I say he worthily fills the place of my dear old friend, his predecessor, I can pay him no higher compliment.

As a society we are deeply indebted to those members who have exhibited such a liberal supply of interesting cases and specimens. Professor Watson has, as in previous years, supplied a large number of most interesting pathological specimens, and enhanced their value by his lucid demonstrations. Here I would like to say that personally, looking back at lost opportunities, I have often regretted not having made greater efforts to obtain permission to make post-mortem examinations in interesting or obscure cases occurring in private practice. I have been agreeably surprised on several occasions at the readiness with which such permission has been granted, and in each case the results have been most interesting and instructive. Possibly remissness in this matter may be peculiar to myself; but still, conscious of my own occasional lapses, I would respectfully urge, on our younger members at least, that in every suitable case in private practice they should endeavour to get leave to make an autopsy. The difficulties are considerable, but not insuperable, and the reward is often great. We are also deeply indebted to those members who have spent much time and trouble in the preparation of the papers to which we have listened with so much pleasure and profit.

The past year has been a year of peace in our society and profession. No disturbing influences from without, no convulsions within have marred the philosophic calm of our gatherings. We have to regret the loss of several of our members, some of whom have died at comparatively early ages, when we might reasonably have hoped that they would still have had many years of usefulness before them. The late Dr. Popham has been a member of this Branch ever since its formation. We have also to lament the death, under peculiarly sad circumstances, of a lady who was frequently present as a welcome visitor at our meetings last year. Two members of our profession, both old Adelaide identities, though never connected with our society, also passed away recently—Drs. Phillips and Morgan Thomas. They had both held office at the Adelaide Hospital, and had retired from practice for many years, having long passed the limit of three score years and ten. Dr. Thomas has earned the gratitude of his fellow-citizens by the princely bequest which he entrusted to the Board of Governors of the Public Library Museum and Art Gallery.

We have now a roll of about 123, the gaps in our ranks having been more than filled by new members. In the first year of the officially recognised existence of our Branch its members numbered 42. That was in 1880-81, the year before that in which my own name appeared for the first time. Of those 42 there are now but 12 alive. Eleven are in active practice, one having strayed into the devious paths of politics. Two have gone to another State, and one, an original founder of the Branch, though with us is no longer of us, leaving eight still here in full membership. We sincerely trust that they will be spared to us for many years to come.

The last year has seen the introduction of radical changes in the rules and the constitution of the British Medical Association. The main object in these alterations has been to provide for the more satisfactory representation of the branches and their members on the central governing body. How the new regulations will work, and whether they will have the desired beneficial effect, time and experience alone can decide. For the present, at any rate, the changes will have but little effect on our Branch, or on its methods of procedure. Simultaneously with the introduction of the new constitution, we have to lament the retirement of Mr. Francis Fowke, the late General Secretary of the Association. The following resolution was carried unanimously at the November meeting of this Branch:—"That the South Australian Branch of the British Medical Association places on record its appreciation of the valuable services of the retiring General Secretary, Mr. Francis Fowke, rendered during his long term of office." Mr. Fowke entered on his office on January 1st, 1872, and therefore held the position of General Secretary for 30 years and nine months. The best test of his efficiency and zeal is to be found in the respective positions of the British Medical Association then and now — then a small semi-bankrupt body, now a wealthy, powerful organisation of over 18,000 members, with branches in every quarter of the globe.

The question of objectionable advertisements was brought under the notice of the Council during the past year. As you are aware, there is in existence the Indecent Advertisement Act of October, 1897, which has been of great use as far as it goes. In a portion of the public press, however, there appeared advertisements which were so cautiously worded that they could not be dealt with under this Act, though their real meaning was quite apparent. Correspondence was initiated by your Council, the result of which was that the most objectionable of

Digitized by Google

these advertisements were deleted, and a promise given that for the future more strict censorship should be exercised. A large and influential section of the press had, of its own initiative, purified its columns some time before. In this connection I may remark that it has often been a matter of surprise to me that a large and old-established firm of high repute in this city should allow its name to appear almost daily under doubtful and suggestive advertisements.

The Council have also had to consider the position of the South Australian Medical Benevolent Association, Incorporated. I will crave your indulgence while I remind you of the origin and history of this Association. At the time of the formation in 1880 of the South Australian Branch of the B.M.A. there was in existence a Medical Association of South Australia. This Association, which had in hand a sum of nearly £200, became merged in the newly-formed branch of the B.M.A. At a meeting held 11th August, 1881, a resolution was passed—"That the money belonging to the Association, now in the Savings Bank, shall be devoted to a Medical Benevolent Fund, for the assistance of medical men and their families in this Province who may be reduced in circumstances. The principal to be placed in the hands of three trustees, and invested by them on approved security." A general meeting of the profession was called, the generous offer of the Medical Association was placed before them, and steps were taken for the formation of the proposed Benevolent Association. Rules were drawn up, officers appointed, and the South Australian Medical Benevolent Association was duly incorporated at a legal cost of £12 1s 6d. Dr. Cleland was appointed secretary and treasurer, and acted in that dual capacity for 20 years up to the beginning of last year. How well he has served the Association, and how ably he has nursed its funds, will be appreciated when we consider that there is now, invested and on deposit, to its credit, a sum of over £500. The original donation from the Medical Association was £197 14s 6d. There have been two donations of £10 each, and one collection of £8 5s was raised for a special purpose. Subscriptions have amounted in all to about £90, and small sums have been disbursed at various times in fulfilment of the objects of the Association, totaling £54 5s. Of late years there have been practically no annual subscribers, and as the life members have dwindled in numbers by death and departure from the State, it has been found impossible to obtain a quorum of the executive for the transaction of business. The only surviving life members are Drs. T. W. Corbin and R. T. Wylde. It has, therefore, been suggested that the Association should in some sort be affiliated to the local Branch of the British Medical Association. As the Benevolent Association is incorporated, its affairs cannot be dealt with by the Branch as a body. The individual members, by subscribing to the Benevolent Association and thereby becoming members of it as well, can take over the management of the latter. The proposed arrangement is, that, year by year, the members of the Council of the Branch should become members of the Benevolent Association so that they could hold meetings and transact business at the ordinary Council meetings. To further this end our secretary, Dr. Gunson, has kindly consented to act as secretary to the Benevolent Association. The qualification for membership is the payment of not less than 10s for the current year. According to the rules, "The income available by the committee of management for disbursment shall consist of all subscriptions received during the current year, and all receipts derived from the principal. All donations, specified as such, and any surplus remaining at the end of the year, after all claims have been settled, shall be added to the principal." Thus you will see that the sum available for distribution at any time is very small, in the absence of annual subscriptions. It is much to be desired that the existence of this valuable Association should be better known to the profession at large, and that it should attract more practical support in the future than has been the case in the past. We hope that the scheme outlined above will have the desired effect, and I should very much like to see the new executive signalise their entry on office by placing on record their cordial appreciation of Dr. Cleland's long and faithful services, and by making him an honorary life member if the rules permit.

We have to congratulate our colleagues, the Dental Practitioners, on at last having obtained a Dental Act. Though not by any means all that could be desired, the Act is better than nothing, and even in its somewhat emasculated form represents an enormous amount of work on the part of the few duly qualified dentists who took the matter up and carried it through. The thanks of the community are due to them and to those more enlightened legislators who introduced and supported the measure. When the Hon. J. L. Parsons was about to introduce the bill, a deputation, consisting of Dr. J. C. Verco, the secretary and myself, waited upon him, by direction of the Branch, to express our sympathy with the provisions of the bill and our best wishes for its success.

Digitized by Google

Our position with regard to the dental profession has always been a rather difficult and delicate one, and will still be so for years to come, till, by effluxion of time, the dental register shall have purified itself, and the status of dentists in South Australia shall be less of a scandal and disgrace to the Government of the State than has hitherto been the case. The position of conservative dentistry in preventive medicine is every day becoming more important. There are two points on which we should lose no opportunity of educating our patients: first, the great advantage and importance of early filling; secondly, the disastrous results, both from the utilitarian and the æsthetic standpoint, of wholesale extraction of teeth, sound as well as decayed, to facilitate the fitting of plates. Too often we see cases where people have been advised to have a "clean sweep" made, and where all the teeth, good, bad, and indifferent, have been "in one red burial blent." The public are, as a rule, in blissful ignorance of the fact that the moment the teeth are all gone the sockets and the jawbones themselves begin to waste, and that this atrophy goes on till not only is the symmetry of the face destroyed, but the plates which carry the artificial teeth are deprived of their basis of support, and rendered useless for mastication, and a continual source of discomfort. I had written the above before the events of last week, which have led to the resignation from office of the Dental Board. I am sure that I voice the feeling of this Association in saying that we sympathise most deeply with that board in the position in which they find themselves placed. However, we must now recognise that the elaborate machinery of a board for registering dental practitioners is utterly unnecessary.

Within the last few months we have seen the opening on West Terrace of the first Crematorium in Australia, the fruit of many years' quiet work on the part of the South Australian Cremation Society, and practically the outcome of the munificent generosity of one well-known citizen. I understand that the society, having produced its Crematorium, and proved its powers on a couple of sheep and one human being (an immigrant of alien race), has perished of post-partum debility, bequeathing its belongings to the Government. It may be interesting to review briefly the precautions which are taken to prevent the furnace being made accessory to crime. In the South Australian Cremation Act of 1891, cremation is only allowed after the issue of a "cremation permit" by the registrar, such permit only to be issued—(1) Upon the receipt by the registrar of certificates from two legally qualified medical practitioners, one of such certificates stating that the practitioner giving the same had been in professional attendance on the deceased, and both such certificates stating that the deceased died from natural causes. (2) If a legally qualified medical practitioner shall, after a post-mortem examination of all the vital organs of the deceased, certify to the registrar that the deceased died from natural causes. (3) If a coroner or justice of the peace who has held an inquest or enquiry into the cause of death of any person shall first have certified to the registrar that such cause has been duly enquired into, and that no further examination of the body was necessary.

Last year there was organised at home a society, which ought to be of much use—"The Imperial Vaccination League." The first meeting was held in December, 1902, and the objects of the league were then stated to be: "To remove all reasonable ground for complaint against vaccination as imposed by law, to promote re-vaccination at school age, and to educate people to a better appreciation of its great value." The promoters also wished to encourage a careful study of the Vaccination Act of 1898, and of its administration, in the hope of being able to formulate improvements in both, which would tend to diminish that opposition to vaccination which prevailed in certain sections of the community. With these aims we must all be in full sympathy, and it is to be sincerely hoped that the Imperial Vaccination League will be able to educate the British public, so that, in the near future, the present Act with that anomalous monstrosity, "the conscientious objector," may disappear from the Statute Book, and give place to something more worthy of the twentieth century. To argue at any length in favour of vaccination and re-vaccination before an audience such as this would be an insult to their intelligence. The experience of the German Empire, where in these matters strong commonsense prevails, is an unanswerable stubborn fact which we cannot make too widely known.

Last year brought with it the jubilee of the entrance into the medical profession of Lord Lister, who has done more than any living man to enlarge the scope of surgery and to improve its practice. Lord Lister passed his examination for the degree of Bachelor of Medicine in the University of London in November, 1852, and was admitted as a Fellow of the Royal College of Surgeons of England on December 9th of the same year. He has been truly described as having "changed the whole face of surgery, transforming an uncertain and limited art into an applied science

Digitized by Google

with almost unlimited possibilities of expansion." Lord Lister's work has received generous acknowledgment at the hands of our Continental colleagues, and the latest dignity conferred upon him was when his Majesty the King of Denmark created him a Knight Grand Cross of the Order of Dannebörg in honour of his jubilee.

Radiography is rapidly extending its sphere of usefulness in medical, as well as surgical, diagnosis, and should be still more valuable now that stereoscopic photographs can be taken with the X-rays. An ingenious arrangement has been also introduced by which stereoscopic pictures can be seen on the fluorescent screen. If this invention can be brought into general use it will possess enormous advantages over the ordinary methods.

It is in preventive medicine that the greatest advances have been made, and to it we must look for the greatest benefit to humanity in general. Researches into the causation of diseases have been richly rewarded. As the specific germ of each disease has been identified, and its history and mode of conveyance been made out, the necessary proceedings for the prevention of that special disease have crystallised into definite form. To carry them out, indeed, is, in most cases, a slow and tedious process, and will demand much time and infinite patience. The discovery of the tubercle bacillus; the life history of the hydatid, a subject with which some of the members of this Branch have been so closely and honourably connected; the typhoid bacillus; ankylostoma duodenale and its attendant and often fatal anæmia; the connection between rats and the plague; the conveyance by mosquitoes of elephantiasis; filarial disease; yellow fever and malaria; the water-borne infection of cholera — all these suggest themselves at once as illustrations. In the case of typhoid fever, dissemination by fæcal contamination of water has for many years bulked so largely in the foreground as almost to obscure other sources of infection. More recent researches have proved that the renal secretion also teems with bacilli. Dust, flies and soiled clothes have incurred grave suspicion as carriers of this disease. These methods of infection are of special interest to us, in a land where dust and flies are not absolutely unknown

Koch's epoch-marking discovery of the tubercle bacillus, and the fact that they are found in large numbers in tuberculár sputum, suggest at once the obvious preventive measure of destroying all the sputum. We should now see a much more rapid diminution in cases of phthisis, owing to the precautions generally inculcated in this respect. The results of post-mortem examinations show how general tubercular infection is, and how very often the bacillus lands on uncongenial soil. Bearing this in mind, we must devote our energies not only to preventing the dissemination of the tubercle bacillus, but also to rendering as resistent as possible the system of each potential host. We must educate parents to regard the free ventilation of their children's bedrooms as a duty of just as great importance as filling their stomachs or clothing their bodies. Our staunch old allies, fresh air and cold water, against both of which so many of the public seem to have such strong prejudices, must be freely utilised. We must rehabilitate as far as we can the character of night air, which has so long been regarded as a noxious and pernicious thing. Old, badly-lighted and badly-ventilated houses, reeking with the germs of disease, must by degrees be swept away, and give place to more hygienic dwellings. We should strengthen the hands of those who are endeavouring to protect our park lands, the lungs of the city, from wrong and robbery.

We have now had in operation since 1898 a Health Act, due in a great measure to that most kind-hearted philanthropist and broad-minded statesman, Dr. Allan Campbell. In it provision is made for the compulsory notification of infectious diseases, including pulmonary tuberculosis. It is interesting to note that a system of voluntary notification was brought before the profession in 1884 by the late Dr. Whittell, then President of the Central Board of Health, and the desirability of its adoption was debated at some length by this Association at their annual meeting that year. This scheme did not long survive. Voluntary notification must always mean invidious distinctions and an entirely unfair onus thrown on the medical man. The fear expressed in some quarters as to possible friction between the medical man in charge of a case and the medical officer of health has not been fulfilled here. The smoothness and lack of unpleasantness with which the Act has worked speak highly for the tact and courtesy with which it has been administered. With notification come the corollaries of inspection and disinfection, and the question of how best to treat the poor who are attacked by these diseases. The sufferers from pulmonary tuberculosis may be divided into two classes—the early or curable and the late or hopeless cases The latter, in a helpless condition, are a grave source of danger to all those about them, and should be placed in some asylum where that danger could be mitigated and they themselves properly cared for. The former,

Digitized by Google

for their own sake and to give them the best chance of cure, should be removed from the surroundings amid which they contracted the disease. I am glad to see that there is a scheme on foot for providing sanatorium accommodation for cases among the poorer classes. At home much has been done in the hospitals and infirmaries in the way of treating such cases, special wards being set aside and provision made for open-air treatment. This, of course, is much less costly than providing special sanatoria, and possibly something of the kind might be attempted here. That accommodation for this kind of case is urgently required, no one who sees much of the out-patient department at the Hospital can doubt.

Whatever may ultimately be proved to be the true relation occupied by bovine and human tuberculosis towards each other, there can be no question that strict supervision should be exercised over our meat and milk supplies. Dr. Borthwick has pointed out, in an able and interesting report on phthisis, for the opportunity of reading which I have to thank the courtesy of the author, and on which I have freely drawn, that inspection of meat cannot be efficiently carried out without the establishment of public abattoirs, and preferably a large central abattoir for the metropolitan area. Dr. Borthwick also elsewhere emphasizes the fact that, though the Health Act of 1898 is a good and sufficient Act, the machinery for its administration is effete and useless. What is urgently required is a strong central board, at least for the Metropolitan area, the portion of the State which most needs it, having sufficient funds at its disposal and a Medical Officer of Health who could devote his whole time to the work. This board should administer the higher functions of the Act, that is, dealing with milk and food supplies, and with infectious diseases, and if possible carrying out the same functions for the country districts, leaving minor matters to the local boards. Under such a board, no longer hidebound by routine, fettered by precedents, and rent by petty jealousies, Adelaide might take her place in the foremost rank in sanitary matters, and be an object lesson of scientific, up-to-date municipal administration in everything connected with the health and well-being of her citizens.

More adequate provision for the reception and isolation of cases of infectious disease is badly wanted. I am informed that the present outbreak of scarlatina has completely overtaxed the available accommodation. Some asylum for incurable cancer cases is an imperative requirement. For some years the Home for Incurables—that most useful institution which deserves more universal support from all classes and from all parts of the State than it now receives—tried to meet the want. The executive of the Home has been reluctantly compelled to abandon the attempt, and now it becomes the duty of the State to provide for the wants of a most terribly afflicted portion of the community.

There is at present in South Australia no provision for the efficient treatment of that *opprobrium medicinæ*, the chronic inebriate. We all know too well what a heart-breaking, hopeless task it is to try and reform these unfortunates amid the temptations of their every-day life. What to do with them is an urgent problem, and it is much to be desired that some solution for it may ere long be found. It is humiliating to realise that, in some cases at least of this disease, the unqualified practitioner is more successful than ourselves.

The question of Quarantine is one which much concerns both the travelling public and the commercial world. The Federal Government promised to go into the matter, and to place the Quarantine regulations throughout the Commonwealth on a more satisfactory basis. This promise has not yet been redeemed, and we can only hope that they may speedily fulfil it, and see their way to substitute for the present harassing Quarantine the English system of efficient medical inspection and its adjuncts.

There is one other matter to which I should like to refer. We all know that the Government recognise the duty of providing the destitute poor with medical attendance and medicine, not only in the hospital and the destitute asylum, but also at their own homes when necessary. I do not think that it is generally known or realised that this medical advice is only available during the day-time; that is, after 10 p.m. there is no provision whatever made by the Government of this State for the relief of any sudden illness, or acute exacerbation of chronic disease, occurring among the destitute classes.

The authorities simply trust to Providence and to the generous humanity of the medical profession, especially to the latter. I do not make the above statement, that there is absolutely no provision for the relief of sudden illness occurring at night among the destitute poor at their own homes, without having instituted careful enquiries both from the police and destitute authorities. Enquiry at the Destitute Asylum elicits the fact that calls for assistance at the institution during the night are infinitely rare. The reason is not far to seek. Messages of the sort to which I am referring are not sent to the Destitute Asylum, but to some neighbouring medical man. These messages, remember, come in the middle of the night,

Digitized by Google

generally from absolute strangers, and from localities where fees are an unknown quantity. The Honorary Staff of a hospital know well how often they are called upon in this way by people, who may some time, often long before, have been under their care at the institution, where they already give to the State so much of their time and labour without fee or reward. It appears to me that, in a civilised Christian community, no destitute person should be allowed to suffer and perhaps die during the hours of darkness without, at least, having the opportunity of obtaining that assistance, their claim to which in the day-time the State fully recognises.

The French system in Paris seems a good and simple one. There the police have a list of medical men who are willing to attend such cases at a fixed scale of fees. In any emergency at night, by calling on the police, the services of one of these gentlemen can be obtained, and they are remunerated by the authorities at the scheduled rates.

A stranger, say an inhabitant of Mars or some other sphere visiting this earth, seeing that the members of our profession thus practically relieve the State of these responsibilities during about a third part of each 24 hours, to say nothing of the thousands per annum which by our gratuitous services at the hospitals and other charitable institutions we save the ratepayers, would naturally expect that our paternal Government should show us some tokens of gratitude and consideration, handle us gently in the matter of taxation, etc., and exhibit towards us some little loving kindness and appreciation to cheer our thorny path amid suffering and sorrow. One might even expect that some faint line of distinction should be drawn between ourselves and other professions, businesses and trades, carried on solely and entirely for the personal gain of their owners, not one of whom would do a hand's turn for the Government without being well paid for their services.

Poor deluded Martian! What are the facts? Suppose in such cases as I have spoken of among the destitute their names are accident ally transferred from our visiting lists to our ledgers, with the ordinary fees debited to them, what happens? Our parsimonious, pettifogging Government, seeking justification in an Act of Parliament by a verbal legal quibble, devoid of equity, justice, or common sense, claims from us income tax on our book debts, moneys that have not come in, and much of which never will come in, including those very supposititious fees among the rest. Of course there is the excuse that, in the fulness of time, at the discretion of the department, when their wisdom shall have decided that each twopenny halfpenny account is, like a medlar, ripe enough to be rotten, or rotten enough to be ripe, the tax will be refunded by deduction from some future year. A great and generous concession truly, after the Government have had the use of our money, and deprived us of it for an indefinite period, besides putting us to untold trouble in bookkeeping, if we are ever to recover our own: much as if a highwayman, threatening us with club or pistol, were to demand a percentage of what we had in our pockets, promising to return the same in a couple of years if we could then prove that he had no right to it. Taxation officials, of course, employ less crude methods—they speak of assessment. Imagine one or all of us going ledger in hand to any bank manager in the city and asking for an advance on those valuable assets, our book debts! He would certainly think either that he himself was labouring under some grave hallucination, or that we had gone stark, staring mad. Even the State Bank would not look at us! The whole situation is more worthy of one of Gilbert and Sullivan's comic operas than of an important Government Department of one of the States of the Australian Commonwealth, and would be farcical were it not so irritating and fraught with such unreasonable hardship to a profession which deserves better treatment at the hands of the community.

It now only remains for me to thank you all for the patient indulgence with which you have listened to my rather prolix and discursive address. My last duty as your president is a very pleasant one, viz., to introdnce as my successor my old friend, Dr. Melville Jay, a man of many parts, whose genial temperament has long since endeared him to us all, and who will, I feel sure, fully compensate during the coming year for all my shortcomings in the past 12 months.

APHASIA AS A RESULT OF HEAT EXHAUSTION.

By R. E. Weigall, M.B., Elsternwick, Victoria.

Whether the title of this paper is correct or not, I leave it to you, gentlemen, to decide. Perhaps it would be better to call it a "case of intra-meningeal hæmorrhage, with aphasia, etc." Intra-meningeal hæmorrhage is, as a rule, from the veins and capillaries of the dura mater generally as the result of violence. There is no history of violence in the case I report, but a history of exposure to great heat. The post-mortem evidences of fatal heat

Digitized by Google

exhaustion are extreme venous engorgements, particularly in the cerebrum. These facts, combined with the symptoms I will describe, I think, justify me in calling this a case of heat exhaustion.

On January 29th, 1903, I was called to see Miss R., aged 36. I found her prostrated, almost pulseless, surface of the body cold, temperature 95°. I was told that she had walked in the sun (sun temperature 156 deg.), carrying a bag to the railway station, about half a mile. On getting into the train she had a "sort of fit," and became partially unconscious. She recovered consciousness in a few minutes, but was greatly prostrated. She was brought home as soon as possible, and was able to walk unassisted from a cab to her bedroom and get into bed. She then vomited and collapsed. I saw her soon after this—about one hour from the onset of symptoms. I raised her head to give her a stimulating draught, when she vomited and collapsed so seriously that I thought for a few moments she was dead. I gave $\frac{1}{10}$ gr. of strych. nit. and inhalation of oxygen, which relieved her. Every attempt at movement induced vomiting. The following are the nurse's notes:—

January 29.—Very restless all night; vomiting; strych. $\frac{1}{30}$ every four hours. *January 30.*—Temperature 100°, pulse 60; vomited last at 7 a.m. On light milk diet; able to take nourishment very well. *January 31 to February 2.*—Condition much the same; temperature from 98° to 100°, pulse 60-64; bowels acting; takes nourishment well; no improvement in general condition; weather very hot. *February 3.*—Temperature 99·8°, pulse 66; at 8 a.m. patient became partially aphasic, with right arm and face paralysis, arm very slightly affected; intelligence clear; can speak, but unable to express herself clearly; tongue very dry; drowsy and listless; hyd. sub-chlor. gr. v. *February 4.*—Temperature 98·4°, pulse 60; intelligence dulled; speech more difficult; retention of urine; blister applied over fissure of Rolando at midday; little brighter in the evening, but failing during the night. *February 5.*—Temperature 98·8°, pulse 68; hardly able to speak; swallows with difficulty; pulse very weak; patient very dull and apathetic; not able to read or write or name objects; general condition failing rapidly. *February 6.*—Temperature 98·8°, pulse 72; patient very low; complete aphasia, alexia, and agraphia. It was at this stage, looking on the case as a desperate one, I thought the symptoms justified trephining, and in consultation with Dr. R. H. Stawell we decided to do so. I moved her to a private hospital, and operated at once, Dr. Vance administering the anæsthetic and Dr. Stawell assisting me. On removing the button of bone over the speech centre, the dura mater bulged dark and turgid, and there was no pulsation. I then made a crucial incision in the dura mater, and found an extensive intra-meningeal hæmorrhage, which freely found its way out. The cortex of the brain was stained, but appeared, apart from congestion, healthy. I freely irrigated with hot saline, and left in a small tube through the incised dura lying on the brain, and left out in the most dependent part of my scalp flap. Dr. Vance remarked on the improvement in the patient's condition as soon as the blood found its escape. The patient passed an excellent night; no vomiting; free discharge of blood from tube; dressings changed at 9 p.m. *February 7.*—Expression greatly improved; wound dressed at 11 a.m.; free discharge of blood; can say a few words, but not sentences; takes an interest in what is said to her.

From this out the patient made a steady recovery. In three days she could say short sentences, and knew the look of letters, but could not name them. I removed the tube on the third day, as the drainage had ceased. On the fifth day I found her reading the *Argus* for her own amusement, and saw some of her attempts at writing, which I have here. At the end of a week she had recovered completely, and is now in excellent health, with no symptoms of any kind.

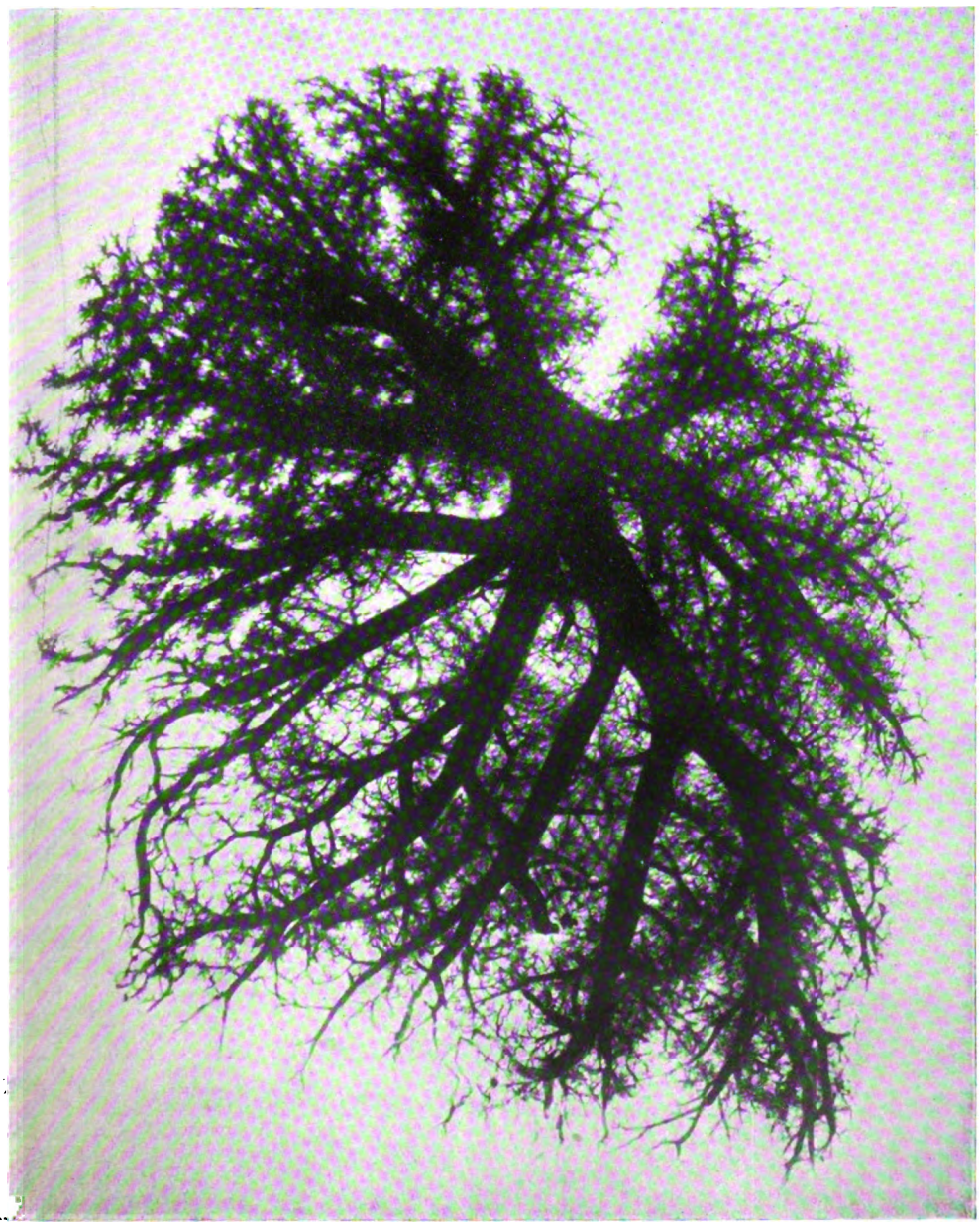
I hope I have placed these facts clearly before you. The patient was in a desperate condition when operated upon—absolute aphasia, agraphia, alexia, and partial arm and face paralysis, and indications of a progressive meningitis, and approaching death. In one week she was relieved. I realise the fact that we were very fortunate in being able to easily locate the mischief, but I cannot help thinking that there are many cases of brain mischief where trephining might be resorted to with benefit to the patient that are not now operated upon.

NOTES ON A CASE OF FREYER'S PROSTATIC OPERATION.

By Arthur T. Vallack, M.B., Ch.M. (Syd.), L.M. (Rotunda), Bowral, N.S.W.

THE title of these notes has been a matter of some consideration, because so much discussion has raged about the operation that even in choosing a title one is treading upon somewhat dangerous ground. I think, however, that Freyer's name should be justly associated with the method of operation, because, although others have removed large prostatic growths, yet he has been the first to deliberately shell these out as a definite surgical procedure after suprapubic

Digitized by Google



SKIAGRAM OF HUMAN LUNG.

(The left pulmonary artery has been injected with red lead mixture.

By Dr. L. Herschel Harris.

Digitized by Google

Digitized by Google

incision. At the same time I have avoided the term prostatectomy because I do not believe that the prostate is removed, that is speaking from a strictly anatomical point of view.

The specimen shown to-night was taken from a man, aged 67, who suffered from rheumatoid arthritis, and was not a particularly promising subject. His trouble commenced with an attack of complete retention of urine, when he was seen by Dr. Stevenson, of Moss Vale, who passed a catheter without trouble. For several days no urine was passed except by aid of the catheter. He was then admitted to the Berrima District Hospital. For five days his retention continued, and then he began to pass urine, but always had from 5 oz. to 10 oz. of residual urine. As he was a very stupid subject, and lived by himself, it was evident that a catheter in his hands might prove rather a dangerous weapon, so I decided to operate whilst the urine was still aseptic.

Anæsthetic was administered by Dr. Throsby, and I was assisted by Dr. Stevenson. A soft rubber catheter was passed and tied in, and 14 oz. of boiled water injected, and the bladder opened by the suprapubic route.

As I was unable to scratch through the mucous membrane over the growth with my finger-nail, as advised by Freyer, a small incision was made with scissors. I then put a rubber glove on the left hand, and inserted two fingers of that hand into the rectum. With the right forefinger in the bladder the opening was enlarged. A little difficulty was experienced in getting into the right plane of cleavage, but once there the rest of the operation was easy and rapid. The two lobes of the gland were adherent to each other, both anteriorly and posteriorly, but with the thumb and forefinger in the bladder, aided by the two fingers in the rectum, the posterior commissure was broken through, and the two lobes enucleated joined by their anterior ends. The method is exactly that of Freyer, with the following modifications:—

(1) A rubber glove was placed on the left hand during rectal manipulations, and thus it was kept aseptic for the completion of the operation.

(2) Two fingers were inserted into the rectum instead of one, giving much better control.

(3) The posterior commissure, though strong, was broken down by the thumb, as well as the forefinger in the bladder, assistance being given by the two fingers in the rectum lifting the prostate up towards the suprapubic opening. This manœuvre enabled the urethra to be preserved intact.

The upper part of the wound in the bladder and parietes was sewn up, and a large rubber drain tube left in the lower part.

During the operation there was not much bleeding, but a considerable though not alarming amount of oozing took place for 24 hours after operation; there was no shock; recovery was uneventful. The temperature never rose above 99°, except during one night in the fourth week, when there was a sharp rise. It fell, however, to normal next day after washing out the bladder.

The bladder was washed out morning and evening while any discharge was present. The patient passed some urine per urethram at the end of the third week, and he was discharged 5½ weeks after operation, well, and with the wound soundly healed.

From a surgical point of view the operation is a good one; it is not difficult, the results are good, and the mortality not high.

It is chiefly on anatomical grounds, however, that I have brought this specimen before this meeting. A considerable discussion not wholly free from acrimony took place in the columns of the *British Medical Journal* from July 13th to September 21st, 1901, as to what was really done in Freyer's cases. The chief point upon which the discussion turned was as to the meaning of the term prostatic capsule. Freyer claimed to have removed "the whole prostate in its capsule." Robson and others declared this to be anatomically impossible. This difference of opinion arose largely, if not wholly, from a different conception amongst the writers as to the meaning of the term prostatic capsule. The prostate gland has two coverings: the inner one is thin and intimately adherent to the gland, of which it is part and parcel; the outer one, which Freyer terms the "sheath," is stronger, and is derived from the pelvic fascia, and between these two coverings lie the prostatic plexus of veins. A most important anatomical point is that this outer sheath does not cover the upper part of the prostate at all, but is reflected from the sides of the prostate onto the sides of the bladder. This point seems to have been missed by those taking part in the discussion referred to. Freyer, observing that no distinct fascial sheath intervened between the mucous membrane of the bladder and the prostate, imagined this outer fascial layer or sheath was always ruptured by the expansion of the prostate. To quote his own words: "In the gradual enlargement of the prostate the sheath becomes thinned over it in the direction of the bladder, till eventually the prostate bursts through its sheath in this direction, and is merely covered by mucous

Digitized by Google

membrane." Now, fasciæ have not the habit of rupturing when pressed upon by slowly growing tumours; they expand readily to gradual pressure. Moreover, it would need a special dispensation of Providence to insure that the sheath should always rupture at the precise point most suitable to the surgeon. As a matter of fact the sheath does *not* rupture; it simply is not there, because, as before stated, it passes from the sides of the prostate to the sides of the bladder, and this is clearly shown in my diagram, which is modified from one in Cunningham's Practical Anatomy. Moreover, Freyer contends that the whole prostate, including the inner sheath or capsule, is removed. Now, I ask you to look at this specimen and say whether by any stretch of imagination it could be described as having a sheath. The covering is rough and fibrous, containing distinct bands, which under a lens look like unstriped muscle. Has that any resemblance to an anatomical sheath? Moreover, Freyer states that the surgeon with his finger-nail separates with some force a prostate from a layer of large, thin-walled, valveless, and frequently diseased veins, and yet the hæmorrhage is comparatively slight. A finger manipulating with any force in the very midst of such a mass of veins would surely tear them to pieces.

One of the chief arguments used in favour of the claim of total removal of the prostate is that after operation no distinct prostatic mass is palpable bimanually; but surely pressure atrophy would easily account for that. Mere vestiges of prostatic substance are left flattened out against its inner sheath or capsule.

Another argument advanced in favour of total removal is that if the surgeon's finger enters a wrong plane of tissue, only separate adenomatous masses are shelled out, and not the whole tumour. But in this particular the tumour does not differ from adenomata in other situations. An adenoma of the breast is often readily separable along definite planes of cleavage into such distinct masses. I believe, therefore, that in this operation the prostate is not removed at all, but merely an adenomatous mass is shelled out.

N.S.W. Lodge Practitioners' Defence Fund.—The hon. treasurer (Dr. W. H. Crago) acknowledges, with thanks, receipt of the following subscriptions since last issue: £2 2s, Dr. Abbott; £1 1s, Drs. Caspersonn, Higgins, S. Sheldon and Tomlins. Amount previously acknowledged, £109 11s 6d; total to date, £115 17s 6d. The hon. treasurer requests that members of the New South Wales Branch who have promised subscriptions will kindly send them in without delay.

PERINEAL PROSTATECTOMY.

By H. L. Maitland, M.B., Ch.M. (Syd.), Hon. Surgeon Sydney Hospital.

A GREAT deal of original work has been done by surgeons during the last two years in the endeavour to perfect the operative technique for the relief of prostatism. Fourteen years ago McGill, of Leeds, and Belfield, of Chicago, independently published reports of series of cases of the suprapubic removal of the obstruction. McGill, as you know, shortly after the publication, died; Belfield continued his prostatic work, and to-day is a strong advocate of prostatectomy by the perineal route, combined in some cases with suprapubic cystotomy. In England, after the lamentable death of McGill, enthusiasm in this branch of surgery somewhat languished, until the recent publication of Mr. Freyers on the "Total Extirpation of the Prostate" has in the English journals again brought the subject acutely before the profession. During the past 14 years in American literature one finds many recorded cases of both suprapubic and perineal removals of the prostate. Judging by the number of reported cases, and the number of men recording them, one finds that in America the perineal is the route of choice; Belfield, Murphy, Parker, Sims, Alexander and a host of others declaring in favour of perineal route; whilst on the Continent Albunan, the famed French genito-urinary surgeon, and Kocker, as far back as 1895, both strongly declared in favour of the perineal route. In England the majority have followed Freyers' lead, and favour the suprapubic route, Sir William McEwan being a noted exception.

I intend this evening to limit myself to a consideration of the relative routes adopted in the operation of prostatectomy with especial reference to the perineal.

The so-called senile enlargement is, as you know, due to a fibro-adenomatous growth, which is practically an overgrowth of the normal glandular tissue. Clinically, the enlargement may be divided into a soft and a hard variety. When there is much enlargement it is of the soft variety, and is due to the rapid growth of the glandular tissue, and may form large masses projecting into the bladder and towards the rectum.

The hard variety is due to a predominance of fibrous tissue, and is very small, hard and tough, forming a lip rising above the level of the urethral floor, then dropping in a perpendicular behind, to form the anterior wall of a bladder pouch. I have seen this variety just as hard and as firm as cartilage, intimately

Digitized by Google

blended with the surrounding structures, impossible to shell out, a knife or scissors cutting it with difficulty. There are many gradations between the two varieties, and they merge into one another; but it is important that there should be a distinct recognition of these two varieties, because I maintain that the treatment of the two varieties is absolutely different.

Anyone who attempts to enucleate one of these very small, hard, firm prostates, which is intimately blended with the bladder-wall and its true capsule, attempts a difficult task, and one which is not warranted as a surgical procedure, because a greater amount of good can be done by less dangerous measures, viz., the making of a low-level urethra. There are various ways of doing this; the electro-cautery used suprapubically or from the perineum being, I think, the best. I do not intend in this paper to dwell on the treatment of the hard fibrous prostate, but I have mentioned it to make clear to those present this evening this fact, viz., that prostatectomy is not the operation for every form of obstructive prostate. It is the adenomatous prostate, the soft variety, that is suitable for enucleation.

Cuthbert Wallace has conclusively proved that the whole prostate, that is the gland plus its capsule (which is derived from the pelvic fascia) is not removed, nor can it be. I have seen in some cases a distinct investing membrane, which might easily lead one to the conclusion that he had removed the true capsule; but this membrane is, as Cuthbert Wallace has shown, an adventitious one, consisting of compressed prostatic tissue.

There are three routes of attacking the prostate—the urethral, the suprapubic, and the perineal. The urethral may be discarded, because any operation done by that route alone is done in the dark; it does not permit of a tactile or visual examination, neither can the obstruction be thoroughly removed, nor the bladder drained.

Which, then, is the better route—the suprapubic or the perineal?

I have operated by both routes, and I have a growing conviction that the perineal is, as a rule, the better of the two, for the following reasons:—

1. *It is the most direct route anatomically.* The prostate lies outside and below the bladder in the perineum, bounded below by the triangular ligament. It is a reasonable surgical dictum that in operating on any organ the most direct route should be taken if important structures can be avoided; therefore, on anatomical grounds, the prostate should be approached from the perineum.

2. *Drainage is more satisfactory.*—By using the perineal route we get drainage which is perfect; it is in the direction of gravity, suprapubic drainage of the bladder itself is satisfactory, because the superior wall of the bladder is kept opposed to the inferior wall by intra-abdominal pressure, and the urine cannot collect, as there is no cavity; but when the prostate is enucleated you have a cavity outside the bladder, below it, and it is not possible to get satisfactory drainage suprapubically. This question of drainage is a most important one, considering the amount of oozing and the frequent septic condition of the urine, and so important is it that I think that in every case of suprapubic enucleation, when that is the operation chosen, perineal drainage should be provided.

3. *Much injury to the bladder is avoided.*—In the so-called Freyers' method the bladder is opened above and below; by the perineal route the prostatic urethra is opened and the floor incised. The opening of the bladder below cannot always be avoided, even in the perineal operation.

4. *There is less danger of sepsis*, because there is better drainage.

5. *There is less shock*, because it is a less severe operation.

6. *The perineal operation allows the prostate to come more into view during the enucleation.* In one of my cases, where the triangular ligament had been divided, the prostate could almost entirely be pushed out on to the perineum by pressure from above, and enucleation was carried out under vision. By using Kocker's transverse incision a view can be obtained not only of the prostate, but of the base of the bladder and seminal vesicles. I quite admit that I do not consider this point of very great importance, but still it is of some importance, and it tends towards the ideal. I also admit that in Freyers' operation a view of the vesical configuration of the prostate is obtained, which you do not get in the perineal operation, but to make up for this the vesical aspect of the prostate can be digitally explored from the perineum.

7. *The patient can easily be placed in the semi-recumbent position*, perfect drainage taking place in this position. This is of some importance, because it must be remembered we are dealing with the aged, and the disadvantages of the recumbent position for any length of time are too well known to require explanation.

8. *The shortening of the convalescence.* The aged patient can sooner leave his bed if he has no abdominal wound.

Digitized by Google

9. *The prostatic urethra is better preserved.* Both lobes cannot be removed completely without some laceration of the urethra. The ejaculatory ducts, as well as the prostatic ducts, open into the floor of the urethra on each side of the veru-montanum, and as they are torn through the floor of the urethra must suffer. To avoid much laceration I divide the prostatic tissue on each side of the urethra with a scissors, and the remnant is left attached to the urethra. I am aware that cases have been recorded when the whole prostatic urethra has been removed, and the urinary function re-established; but a close scrutiny of the account of such cases shows me that sufficient time has not elapsed between the operation and the publication of the report to decide whether stricture will follow or not. I prefer to remove as little of the prostatic urethra as possible; the roof at any rate should be left. We are all aware that stricture is apt to follow traumatism; if the prostatic urethra be removed, then in the process of healing its lumen must be surrounded by cicatricial tissue. One of Reginald Harrison's cases of suprapubic prostatectomy, in which the prostatic urethra had been removed, early became strictured.

10. *There is less hæmorrhage.* The prostatic plexus, according to Moullin, is deficient below, and this is when the capsule is opened in the perineal operation. Personally speaking, I do not think there is very much difference in this respect between the two operations, but I think that if there is hæmorrhage following on the operation it is better controlled from the perineum.

The perineal operation presents one main difficulty—that of bringing the prostate down sufficiently low in the perineum so that one is enabled to get around it with the finger. Various devices have been suggested to overcome this:

1st. By doing a suprapubic cystotomy and crowding down the prostate with two fingers of one hand in the bladder, whilst the other shells it out through the perineal wound.

2nd. By making a small opening into Retzius's space, for a similar reason, or by pressure above the pubes.

3rd. Traction downwards made by a dilatable bag introduced through the prostatic urethra into the bladder. (Parker Sims' method.)

4th. Traction downwards made by fingers of left hand in rectum.

5th. By introducing index finger of left hand through prostatic urethra and hooking it down, whilst enucleation is done by the right index.

6th. Traction downwards by sound passed through prostatic urethra from perineal wound and turned with the point backwards, or by such an instrument as Gouley's prostatic depressor.

7th. On exposure of the prostate and dividing of its capsule traction may be made downwards by a volsella.

I thought at first that it was necessary to make the suprapubic opening, but I think that the suprapubic opening will be less required than was at first thought. A good deal depends on the size of the overgrowth. I think that a free transverse division of the triangular ligament, which prevents the prostate coming down, aided by a curved sound introduced through the prostatic urethra, pressure down by two fingers in the rectum, and traction by a volsella, will, in a number of cases, do away with the necessity of the suprapubic opening. The perineal incisions usually used are the lateral, the medium and the transverse curved. The medium is the ideal one, but it is only suited for a small adenomatous prostate in a patient with a short perineal depth; the lateral one has the disadvantage of dividing the branches of the internal pudic artery and nerve passing towards the middle line, viz., anteriorly the superficial perineal vessels and nerves and the artery to the bulb, and posteriorly the inferior hæmorrhoidal vessels and nerves; it also has the disadvantage of being too far on one side.

I prefer the transverse curved incision advocated by Kocker, the curve reaching to just below the lower border of the symphysis pubes; the lateral part of the incision opens the ischio-rectal fossa; the transverse perineal vessels and nerves the artery to the bulb, and the transverse superficial perineal muscles are drawn forward laterally you come upon the fibres of the levator ani, the fibres of which run from before backwards and from without inwards towards the rectum, and in the middle of the wound are exposed the bulb and the accelerator urinæ, the fibres of which run forwards and outwards. The central point of the perineum, where the fibres of the accelerator and external sphincter meet, is divided transversely. The post-fibres of the compressor urethra and sup. layer of triangular ligament are divided. This exposes the prostate. The urethra is now opened on a guide just in front of the prostate, the finger introduced, and the bladder explored if it be within reach. The floor of the prostatic urethra is then divided, the left index finger being introduced beneath the prostatic capsule and swept round below

Digitized by Google

TABLE OF CASES.

No.	Age	Previous History.	Operation.	Condition of Prostate.	Result.
1	60	Symptoms: Four years nocturnal frequency, four and five times a night. Occasional attacks of retention.	Perineal enucleation; medium incision.	Adenoma of right lateral lobe easily removed. The growth projected backwards towards rectum.	Incontinence for one month after wounds healed, this disappeared; some slight nocturnal frequency once or twice at night. Has never had retention since two years after operation.
2	62	Symptoms eight years; last four years nocturnal frequency as many as 15 times; self catherisation for 18 months; purulent alkaline urine.	Perineal enucleation, plus suprapubic cystotomy in two stages.	Both lateral lobes removed in several pieces; three small calculi removed from the bladder.	Developed hemiplegia 14 days after operation, which ultimately cleared up. Five months after operation developed acute cystitis, after passage of large sound, in out-patients' department, both suprapubic and perineal wounds broke down, urine loaded with B C C, after irrigation wounds healed; still had some frequency, but urinary condition much improved. No information obtainable as to present condition.
3	70	Symptoms about 12 years; two attacks of retention in month previous to operation. Nocturnal frequency five and six times at night.	Perineal enucleation.	Both lobes removed.	Slight frequency at night; otherwise urinary health good 12 months after operation.
4	61	Symptoms six years; marked nocturnal frequency; purulent urine.	Perineal enucleation, plus suprapubic cystotomy.	Both lobes removed; large vesic calculus.	Died on tenth day of sepsis. This patient was a bad subject; had twice been in hospital for insane; dressings were frequently removed by the patient, who developed mental symptoms two days after operation.
5	68	Symptoms four years; complete suppression about six weeks previous to operation; a quantity of muco-pus present in acid urine; frequency 10 or 12 times at night.	Perineal enucleation.	Both lobes removed	Three months after operation has some pus in acid urine, with slight frequency; otherwise urinary health good.

laterally and above on either side, the prostate being drawn down by a volsella held by an assistant, two fingers of the operator's right hand making counter pressure in the rectum. The prostate then only remains, attached on either side of and above the urethra, and this attachment is divided with a scissors to preserve the roof of the prostatic urethra. The prostate usually comes away in two halves. The vesical orifice, if it was not within reach before now, is within easy reach. The bladder is irrigated, a perineal drain introduced, and the wound plugged around it. The after-treatment is that of an ordinary external urethrotomy.

Conditions Influencing the Choice of Operation in Enucleation of the Prostate.—The thin, spare individual with a short perineal depth is best reached by the perineal operation. The stout individual with a thick perineum and a long perineal depth and the prostrate high up is better reached by the suprapubic or combined routes; I would prefer the latter. Pedunculated vesical prostatic outgrowths are best reached by the suprapubic route.

The small adenomatous prostate is more easily reached by the perineal route, the very large by the suprapubic or combined routes, the latter preferably. If the enlarged prostate is complicated with calculi, a condition not always easy to diagnose, then I would advise the suprapubic or combined routes, preferably the latter. If the bladder is small and contracted the perineal route is preferable. If there is very marked cystitis, with purulent alkaline urine, then preliminary suprapubic cystotomy, with bladder irrigation to improve the local condition, followed in about 10 days by perineal enucleation, is the operation of choice.

Digitized by Google

One advantage of the suprapubic route is that a visual examination of the bladder and the visual aspect of the prostate can be made. Believing as I do that every case of suprapubic prostatectomy should have perineal drainage, the method I have adopted in operating for prostatism is this:

Make your perineal incision first open into the prostatic urethra; explore the bladder if possible, and it generally is within reach; palpate the prostate bimanually through the rectum; ascertain the nature of the enlargement, whether the lateral lobes are at fault, or whether it is an outgrowth from the middle commissure, then if it comes down easily complete the enucleation by the perineum in the manner I have indicated; if it does not come down easily, and is far out of reach, and the middle commissure is at fault, a suprapubic cystotomy is done, and the operation completed by that route, using the perineal wound for drainage, or the enucleation may be carried out from the perineum, aided by pressure from above through the suprapubic wound.

I am quite conscious that many of the statements I have made are open to adverse comment, but they are views based on a close study of the subject, and some experience of operative work on the bladder, urethra and prostate. In every operation I have done on the bladder, or on the post urethra I have been careful to pay especial attention both to the surgical anatomy and gross pathology of the prostate, and it has led me to the conclusion that no cutting operation on the bladder or post urethra is complete in a man over 50 without a thorough digital examination of the prostate is made. In the small series of cases which I give you I have omitted all operations on the hard fibrous prostate which have been cauterised. I have also omitted all cases of suprapubic enucleation, and have only included those in which enucleation has been done by the perineal route. I have not included a sixth case, which is still convalescent in the Sydney Hospital.

CLINICAL AND PATHOLOGICAL NOTES.

APPENDICITIS WITHOUT SYMPTOMS.

M.M., aged 13, walked into my consulting room on December 27th, 1902. She had eaten a large green apple the previous evening, after which she had much pain and vomiting. Previous to this she had always been in excellent health, except for a similar but very slight attack which she had about a year before. It lasted but a few hours, and she had not found it necessary to see a medical man. Previous to that attack she had suffered from constipation. The child was slight and somewhat delicate in appearance. Her face was expressive of pain. She was slightly bent forward and inclined to the right. Her right leg and hip were in advance of the left as she crossed my room. In short, her face, position and movements were at once suggestive. Her tongue was fairly clean and her temperature 98·8°, pulse slightly increased but not strong. The condition being clear, I sent her to the private hospital, ordered an enema of opium, asafœtida, turpentine and warm oil. When I saw her in the evening she had had a large constipated motion, which gave relief to a degree. The temperature and pulse had increased a little. I hoped to find an improvement in the morning. At an early hour, however, she had a sudden and severe pain, with vomiting and collapse. When I saw her later it was quite plain that she had general peritonitis, most probably due to perforation. I arranged to operate, and did so some few hours afterwards, 30 hours after she had walked into my consulting room. There was no difficulty in exposing and removing the appendix, which stood up vertically like a solid mass. At its base could be plainly seen a gangrenous patch, in size like a threepenny piece, having in its centre a perforation, all plainly shown in the photograph. The operation was completed in the usual way, but her condition was such that little hope could be entertained, and she died the following day.

The appendix cut open showed its walls thickened and hard, with its interior covered with ulceration throughout its whole extent, and showing concretions of a dark slate colour covered with muco-pus. The appendix must have been undergoing these changes since the previous attack a year before, and without a single symptom of any kind until that moment when the peritoneum was attacked, to be so speedily followed by perforation and general peritonitis. Such cases and conditions are set forth in the "Cavendish Lecture," given not so long ago by Sir Fredk. Treeves, and referred to as those "very hopeless ultra acute cases."

RICHARD JONES, L.R.C.P., L.R.C.P.S. (Irel.),
Hon. Physician, Bendigo Hospital.
Bendigo, Victoria.

A handsome stained-glass window, the gift of the Hon. Dr. C. K. and Mrs. Mackellar, to the memory of their son, the late Lieutenant Mackellar, has been unveiled at St. James' Church, King-street, Sydney.

Digitized by Google

MIRROR OF HOSPITAL PRACTICE IN AUSTRALASIA.

BRISBANE HOSPITAL, QUEENSLAND.

Two Cases of Enlargement of the Prostate Gland in which Freyer's Operation for the Total Removal of the Gland was Performed.

Reported by E. S. Jackson, M.B., Ch.B.,
Hon. Surgeon, Brisbane Hospital.

[For the notes of the first of the following cases I am indebted to Dr. Fearnley, of the General Hospital; and I have also to convey my grateful appreciation of the care and attention given to this and other cases by the Resident Staff of that Institution.]

Case 1.—T.D., aged 72, came under observation March 17th, 1903, suffering from retention of urine, and giving a history of difficulty with his water for five years and more before. The stream was small; there was difficulty in starting it, and during the last six months there had been great frequency in passing water—as often as every hour or two, day and night.

For a fortnight after admission he was kept in bed on milk diet, and a mixture containing salol and tincture of hyoscyamus was administered. He was catheterised eight-hourly, and his bladder was irrigated twice daily with boracic lotion. He was then allowed to get up and about, and the choice was given him between catheter life and operation. He chose the latter, Freyer's operation being decided upon. Urotropine in solution was given in 20-gr. doses three times daily for a week before it took place.

On April 17th he was anæsthetised with ether and the bladder opened suprapubically. The mucous membrane over the most prominent part of the enlarged prostate was snipped, and by means of the right index finger in the bladder (the left index finger in the rectum) the whole gland was shelled out in three pieces. Fairly free hæmorrhage ensued, but was checked by irrigating with hot boracic lotion. A drainage tube was left in the suprapubic wound and a soft catheter in the urethra.

The patient stood the operation well. The bladder was irrigated daily with hot boracic lotion, which was introduced by the catheter, and flowed away by the drain tube above. The catheter was left out on the third day, and the drainage tube on the fifth, daily irrigation being still used. On the eighth day he was allowed up. On the twelfth day after operation he passed water naturally—about six ounces. By the nineteenth day, urine had ceased to come through the suprapubic wound, which was almost closed. Four weeks after operation he could hold water as long as three hours. Eight weeks after, he says he has only to get up once in the night, and three times daily is as often as he requires to urinate. His general health is excellent, and he seems to have taken a new lease of life.

Case 2.—W.P., aged 65 years, first came under my observation three years ago suffering from the usual troubles incidental to enlargement of the prostate gland. In consequence of some successes that I had had with the operation of orchectomy, that proceeding was recommended to him, and promptly declined. Catheter life was commenced, and kept fairly comfortable except for an attack of cystitis till a few weeks before operation, then a second cystitis brought him under my care again, and I advised total extirpation, a proposal which met with approval from him as cordial as his former refusal of orchectomy had been emphatic. That refusal had not been due to fear of death under operation, for it was with great alacrity that he came to the table on March 30th for Freyer's operation. With Dr. Hopkins assisting, and Dr. Meek giving ether, I found little difficulty in shelling out the prostate through a suprapubic incision, in three pieces. Bleeding was profuse, but was easily enough controlled by hot irrigation with boracic lotion. The large ragged wound which was left after removal of the prostate was plugged with gauze, a few catgut sutures were put in the bladder wall and a portion of the gauze left protruding from the wound in the skin. Through the remainder of this day and the next he was troubled with vomiting, and there was a considerable amount of oozing. He was also troubled with a good deal of irritation in the rectum.

April 1st.—The gauze was removed and a tube inserted into the suprapubic wound, the catheter still being retained in the urethra. By April 3rd he was improving and taking food nicely. By April 13th he was passing all his water through the catheter; none was coming through the wound. On the 13th the catheter was removed. Thereafter his recovery was uninterrupted, except that for a few days at one time he had a temperature following a slight rigor, due to a slight hæmorrhage into the bladder giving rise to retention in part, and thus to alkaline urine. Boric acid irrigation soon put that right, however.

When last seen, a fortnight ago, he was passing all his urine naturally, was quite happy and comfortable, working hard at his occupation of inventor, and came out of his forge from his work to see me.

Digitized by Google

The prostate is a good deal smaller after its three months' immersion in spirit than it was at its removal.

I have little to say about the operation itself, but so far as my experience goes in these and other cases it seemed easier to remove the gland the larger the prostate. With the larger glands, it seemed easier to appreciate the line in which to conduct the dissection. I have worked in different cases with either hand, and with and without a finger in the rectum to lift the prostate forward and bring it better within reach and steady it. A moderately long finger-nail seems an advantage on the finger that does the dissection in the bladder. Perhaps the fingers of the stronger hand will do best for the work in the rectum. In any case, fingers so used are a material advantage. Bleeding was free, but not very alarming, in both of these cases, and was easily controlled by the hot irrigation. In my first case I plugged with gauze, but I should avoid this if I had to do the same operation again.

The results of the operation seem so good that it seems to me that once one is satisfied that there is an obstruction due to an enlargement of the prostate, general or partial, it becomes one's duty to recommend this operation. Catheter life for such cases should be at an end.

I have recently operated on an old man of 85 years of age. He made a very fair recovery from the immediate effect of the operation, and is getting about a little already, though the operation was only done about a fortnight ago. It is too early to speak of his result as yet. Hence age in itself seems no bar to the operation.

REVIEWS AND NOTICES OF BOOKS.

A Handbook of the Pathology of the Skin. By J. M. H. MacLeod, M.A., M.D., M.R.C.P. London: H. K. Lewis, 136 Gower-street. 1903. Price 15s.

This book is intended to be an introduction to the anatomy, pathology and bacteriology of the skin, and as such is worthy of the highest praise. It contains a large number of histological methods, some of a highly complex kind, but all very admirably described. The outstanding feature of the book is undoubtedly its masterly description of the technique of skin pathology, which should prove of great interest not only to the specialist but to all who take an active interest in pathology, and especially the advanced methods of pathological histology.

This is the first book of its kind published in the English language, and the author is to be much congratulated on his masterly dealing with the subject. Extensive references are made to the work of Dr. P. G. Unna, of Hamburg, and some of the more useful methods adopted by that celebrated authority on diseases of the skin are carefully and fully described.

The author has wisely introduced the various sections of the work by short, lucid accounts of the normal histology of the parts. This renders the appreciation of the morbid changes all the more certain for the reader. The first 47 pages are devoted to a description of the methods in most general use in the study of skin pathology. Then follows in detail a description of the layers of the skin and of the morbid changes found in each in the various diseases to which they are subject. Commencing with the epidermis it passes on to the corium, the hair, the subaceous glands, the sweat glands, the muscles of the skin, its blood and lymphatic vessels, its nerve terminations, the fat in the skin and subcutaneous tissue, the pigment and the nails. The book is ended by a very excellent description of the various parasitic diseases of the skin, and this part contains an excellent account of the micro-biology of ringworm, with special reference to the elaborate researches of Sabouraud. When discussing the question of neoplasms of the skin the author appears to favour the view of their parasitic origin, and gives very good and sound reasons for his belief therein.

The illustrations (and they are numerous) are very good, though many are semi-diagrammatic; this, in our opinion, rather adds to their value when regarded from the standpoint of teaching. The whole get-up of the book is admirable, and the author is to be congratulated not only on the excellence of his work but also on his choice of his publisher. S.J.

Diseases of the Skin: Their Description, Pathology, Diagnosis and Treatment. By H. Radcliffe-Crocker, M.D., F.R.C.P. (London). Two vols. Third edition. London: H. K. Lewis. Price 28s.

After a number of years we note the issue of the third edition of Dr. Radcliffe-Crocker's well-known work on "Diseases of the Skin." The book has been hitherto one of the best text-books on this subject; and as ten years have elapsed since the publication of the second edition, and during this period very material advance has been made in the various branches of dermatological knowledge, a new one is manifestly a necessity in order to bring the contents up to its former standard of excellence, and to date. The expansion of this branch of medical science has in due course led to a considerable enlargement of the book, hence the author has found it advisable to divide it into two volumes; the first containing 672, the last 715 pages, making in all an increase of 448 compared with the immediately preceding issue.

As the author mentions in his preface, he has described more or less at length a number of new subjects, amongst which may be mentioned X-ray dermatitis, Toxin serum eruptions, Granuloma pyogenis, Mortimer's malady, Veld sore, Blastomycosis hominis, etc.

Many other articles, owing to their increased importance, have been considerably expanded. On studying the formidable list of new skin disorders enumerated and described in this edition, one is led to hope for the comfort of future dermatological students that many of them may be either disguised old acquaintances, or that others are merely diverse manifestations of the same pathological process.

The author has endeavoured to simplify matters by classifying under one group certain newly described affections which are characterised by more or less abnormal desquamation—for example, Parakeratosis variegata, Dermatitis psoriasiformis nodularis, etc.—though in some instances he has rather neutralised this attempt by differentiating pathological processes which are probably identical, and altering the nomenclature in others where the names given by the original observers, though possibly they may not have been absolutely pathologically correct, their retention would lead to less confusion.

The preliminary chapters on Semeiology and Etiology have not been materially enlarged, though, however, as

Digitized by Google

would be expected, that on Pathology is lengthened and practically rewritten. More particular reference has been made to the nervous system as an etiological factor, and to the importance of the Primary plague and Eosinophilia. The general division on Treatment also is more extensive, owing chiefly to the consideration of sodac cacodylate, salicin and salicylates, thyroid extract, quinine, intestinal disinfectants, Finsen light, Röntgen rays, and high-tension currents as dermatological therapeutic agents. The more important headings are printed in heavier type, an innovation which is very convenient for reference.

The classification is essentially the same as hitherto, and here, in the light of the results of modern research, we think it would be more scientific if admittedly microbian affections, such as lepra, lupus vulgaris, and other forms of skin tuberculosis, etc., were included under the heading of parasitic diseases instead of elsewhere.

The chapter upon Urticaria pigmentosa occupies, in this edition, considerably more space and is brought up to date. Special reference is made in the portion dealing with the anatomy and pathology of this complaint to the work of Unna, and the confirmation by other observers of his observations in connection with its histo-pathology. The pathognomonic importance of the extraordinary collection of mast cells in the papillary layer, and the discussion as to their origin, is also dealt with.

The article upon Impetigo and allied affections has been rewritten, and occupies much more space than formerly. Speaking of rapidly generalised forms of impetigo, the author, in explaining this generalisation, maintains that it is almost certain that pus cocci get into the circulation. It seems hardly probable, in a bacteriological point of view, that if this absorption took place the process would merely result in a generalisation of the trouble and the production of febrile symptoms; in fact, in a case seen by the reviewer the organisms did get into the circulation, and gave rise to an attack of pyæmia, leading to suppuration in the shoulder-joint, large lumbar and gluteal abscesses, phlebitis, etc.; finally the attack ended in recovery after a period of six months. We also do not think that the scalp *per se* "is more favourable to the development of pus organisms than the face." Certainly, among hospital patients suppuration is more common in the former locality; but this is probably due to the scalp being more frequently exposed to the chance of inoculation by scratching, combing the hair, etc., than to its being more suitable for microbian growths. The anatomy and etiology of Acne varioliformis is also discussed at length, and the author does not appear to be inclined to accept Sabouraud's "lucid description" of the cause of the phenomena observed in this complaint. Referring to this, Dr. Radcliffe-Crocker says that "this (Sabouraud's description) makes it all so beautifully clear that it ought to be true. It is strange, however, that while the conjunction of two such very common organisms is all that is required, yet the disease should be so rare, and that, unlike Acne vulgaris, it is very rare amongst well-to-do people." This, we submit, can hardly be accepted as sound reasoning, for it is well known that there are numerous agents, microbian and otherwise, to the influence of which many individuals are exposed, though only a few suffer from their pathological effects, *e.g.*, those producing various forms of dermatitis venenata, urticaria, etc., and in these cases the same sort of argument could be applied against their etiological functions.

Without supporting or denying Sabouraud's views on this subject, we think Dr. Crocker in this instance has not sufficiently considered the possible influence of idosyncrasy and personal environment. The co-existence of such secondary factors would appear more likely to be rarer in the case of a double infection than in a single one. The largely increased knowledge on the trichophytons, the result mainly of Sabouraud's valuable work, has led the author to considerably extend his articles on the diseases arising from these organisms. There are also several fine plates illustrating the histopathological appearances of hair affected by the various forms of this variety of parasite.

Gayle, a disease that may be of some interest to country practitioners in a sheep-raising land like Australia, is described under the heading of "Dissection Wounds." This complaint is primarily a puerperal infection in sheep, and is communicated to man during the process of skinning the animals that have died from it. In him it is merely a local affection, characterised at first by the formation of a "pimple," which rapidly enlarges into a flat localised bluish-grey vesicle, depressed in the centre and surrounded by a red aureola. The contents of the vesicles are clear or blood-stained, and the lesions may attain one inch in diameter, but give rise to little or no general symptoms in the human subject.

General additions have been made to the appendix, and amongst them may be mentioned Mr. George Pernet's brief but excellent directions for the examination and staining of micro-organisms found in the skin. Necessarily, of course, accounts of the striking new methods of treatment devised since the last edition, viz., Finsen's light and X-rays, have been added in the articles upon diseases where they are applicable. Another innovation, besides those before mentioned, is the addition of coloured plates illustrating some typical forms of the more usual syphilides.

Reviewing the book as a whole, the reputation of the former edition for sound clinical description and practical advice as to treatment of the individual diseases is more than maintained. The points open to criticism are for the most part of theoretical importance only, and detract little from the value of a work which, owing to the labour and care manifestly expended upon it in order to ensure a thorough revision, will, we are sure, still hold a foremost position amongst the skin text-books written in the English language. The general arrangement of the work is excellent, and the only exception that can be taken is that it would be more convenient if there were a separate index for each volume added to the particular volume, with a general one attached to the last.

The printing is clear and comfortable to read, and the binding tasteful. We heartily congratulate the author on the ability with which he has completed such an extensive and complicated work, which, perhaps, it is superfluous to say can only meet with a well-merited success. W.J.M.

PROTOPLASM: Its Origin, Varieties and Functions. By John W. Hayward, M.D. Bristol: J. Wright and Co. 1902. Price, 1s 6d net.

This essay is based upon a paper "On the Origin and Nature of Matter and Force and Life and Mind," read before the Literary and Scientific Society of Birkenhead in 1901. He deals first of all with the origin and nature of matter and its various forms; then of the origin and nature of life and mind. In this latter chapter he deals with such interesting and important questions as the nature of consciousness, memory, recollection, will, judgment, necessarily in a very brief manner. He concludes with a discussion on the question of abiogenesis. We cannot say that we endorse the author's conclusions, but the essay is suggestive and thoughtful. G.E.R.

Digitized by Google

THE AUSTRALASIAN

MEDICAL GAZETTE.

SYDNEY, 20TH JULY, 1903.

THE FAILURE OF QUARANTINE.

THE recent occurrence of smallpox in the different States of the Commonwealth of Australia and in New Zealand has shown that absolute reliance cannot be placed upon our quarantine regulations for the prevention of the introduction of serious epidemic disease into our midst.

The steamer "Gracchus" arrived in Melbourne from India early in May last, having obtained pratique at all ports. Some passengers were landed at Melbourne, and the steamer proceeded to New Zealand; but on this latter part of her voyage one fatal case of smallpox occurred on board, and subsequently other cases of this disease appeared in Melbourne, Ballarat, and in New Zealand among those who had either been passengers themselves or had come into contact with passengers. How or where the infection was acquired is not certain, but apparently it was brought by the steamer from India, and the quarantine regulations did not prevent the introduction of the disease into the Commonwealth.

Later still, we have the occurrence of an outbreak of this disease in Launceston—an outbreak which threatens to be extensive and serious, and the exact origin of which is at present shrouded in mystery. But one cannot help feeling that it may be due to infection introduced by the "Gracchus," and which has been allowed to smoulder until the present serious situation has been produced. Whether or not the disease was recognised at first in Launceston, and its existence purposely concealed, as is suggested by some—a suggestion which all right-thinking persons will repudiate—the fact remains that so infectious a disease as smallpox has gained a footing in one of the seaport towns of Tasmania, and has obviously been introduced from without.

Two important questions arise from a consideration of these facts. The first is whether our quarantine regulations are of themselves sufficiently stringent in view of the endemic character of smallpox in England and Eastern countries, or whether they are sufficient but are not enforced to the extent necessary when we consider the constant existence of serious epidemic diseases in foreign parts. We know the serious inconvenience to which passengers and the shipping community are subjected when quarantine regulations are rigidly enforced, but these considerations should have no weight in view of the menace to health, as well as to the dislocation of trade, which results from the introduction of smallpox and similar infectious diseases into a community. We do not for a moment insinuate that there has been any neglect on the part of the quarantine officials, but the fact remains that by some means or other the defence of the Public Health against the introduction of epidemic disease by quarantine has on this occasion failed.

The second important question is this: In view of the failure of our first line of defence against epidemic disease, what about the condition of our second line? Here we must admit we are lamentably unprotected. According to official statistics 90 per cent. of the population of these States are practically unvaccinated, and we know what happens in an unvaccinated community when smallpox once gains a footing. Surely the experience of the last few weeks points most strongly to the urgent necessity which exists for the vaccination and re-vaccination of every member of the community. This should be strongly urged by every member of the profession on his patients; but until the medical men do arouse

Digitized by Google

them to a sense of the importance of this protective measure the indifference and ignorance of the general public will remain a serious menace to the Public Health in the face of a serious epidemic of smallpox.

MODERN PRESCRIBING.

Last month we referred to the advances which have been made in recent times in the methods of diagnosis. Coincident with the advance in the application of experimental results to practical medicine there have been great strides made in therapeutical methods. It is true our knowledge of the actions of drugs is vague in the extreme; we reason *post hoc propter hoc*, and believe that certain drugs do have some specific beneficial effect in certain morbid conditions, but how that action is effected is in many cases only a matter of conjecture.

In spite of this, however, we must admit that our stock of useful remedies has been considerably enlarged by the labours of experimental chemists and pharmacologists, and nowadays, instead of the nauseous mixtures which our forefathers dealt out in large measures, we can use the "elegant preparations," the "tabloids," the "bipalatinoids," etc., of the modern pharmacist; but this is, after all, not an unmixed blessing to the general public. The habit of self-drugging, which is so largely favoured by the number of patent medicines, is still further aggravated by the ready acquisition of powerful remedies in convenient form, which soon become well known to the general public, and the repeated and uncontrolled use of which is often a source of danger to life and health.

There is also another side to the question. We have heard of a woman who consulted a doctor in the country for some ailment, and received a box of tabloids for her treatment. The "elegant" preparation, however, failed to have the desired effect, so she sent a request to the doctor for a *bottle of medicine*, as she did not require any pills. The moral effect of a good dose of a nauseous mixture, especially if it produce a good deal of stomach and intestinal disturbance, is often marvellous in some patients. We know that some are not satisfied unless they receive in return for the fee a bottle of medicine, a bottle of liniment to rub in somewhere, and a box of pills to complete the cure! And it is well for the dispensing chemist that it is so. Perhaps the next generation will be better educated at the hands of the enterprising pharmacists, and the art of prescription writing will be a thing of the past. But we have to deal with present-day requirements, and so long as the writing of prescriptions is a matter of necessity for the medical practitioner, it is a matter of importance that the prescription should be written with some regard to dosage and incompatibles. The art of the pharmacist is no doubt of great assistance to the medical man; but we fear that the art of correct prescription writing is gradually being lost, and it is owing to the care and attention bestowed upon the compounding of prescriptions by the dispensing chemists that serious results do not often ensue.

Some discussion has recently taken place in the *Lancet* upon the attitude a dispensing chemist should assume when brought face to face with a prescription containing a dangerous combination of incompatibles, or dangerous doses of powerful drugs. There surely can be no two opinions upon such a question. The chemist should communicate with the doctor before proceeding to dispense the prescription; but if that be impossible the chemist should use his discretion to render the prescription a satisfactory one both from a chemical and posological standpoint. We should recognise the dispensing chemists as our most important allies in combating disease, and herein lies the importance of the medical practitioner being sure of his prescriptions being compounded by reliable dispensing chemists. Accurate dispensing can only be done by thoroughly trained chemists

Digitized by Google

who are worthy of their hire. Cheap dispensing means bad drugs or bad dispensing, or both, and should be strongly discountenanced by our profession.

THE MONTH.

The Founders of Prince Alfred Hospital.

Steps are being taken by the Board of Directors of Prince Alfred Hospital, Sydney, to perpetuate in an enduring form the memories of those who have had most to do with the foundation and development of the hospital. The late Dr. Norton Manning was one who took an active part in the designing and superintendence of the buildings of the hospital, and subsequently in its administration as hon. secretary and as a member of the Board of Directors. It has been decided to invite Dr. Manning's friends to co-operate with the board in procuring a bust of him, to be placed in the hall of the hospital, with others of the founders of the institution, and subscriptions have been invited towards this object. Subscriptions are to be limited to one guinea.

Preservatives in Foods.

In March last the Sydney Board of Health published a set of regulations as to the use of preservatives in foods. These regulations were made under the powers vested in the board by the Public Health Act of 1902, and were published in the *Government Gazette* of March 20th. The 90 days' notice has now expired, and it rests with the local authorities to see that these regulations are enforced. A great deal of correspondence has appeared in the daily newspapers, and much opposition has been aroused against the board by manufacturers and others interested. It is maintained that the use of preservatives in foods in small amounts is quite harmless, and is absolutely necessary in the warm and muggy climates of these parts of Australia. It is said that the almost total prohibition of the use of boric acid in the manufacture of preserved milks is a serious menace to the existence of this industry; and the prohibition of the use of salicylic acid in temperance drinks and cordials prevents the distribution of these drinks in the country in summer weather. There may be some speciousness in these arguments, but we assert that the course of action adopted by the Board of Health is one which must commend itself to the minds of all who consider this question from all points of view. It may be true that the addition of two grains of salicylic acid to the pint of cordial is perfectly harmless; but one has to bear in mind the fact that if all articles of food and drink are adulterated in the same or higher proportion, then in the course of the day one consumes not a harmless quantity, but one which may even exceed the maximum dose of this drug as given in the British Pharmacopœia. But there is not the slightest necessity for the addition of these substances to cordials, if they are manufactured of proper materials and in a proper manner. The fact that preservatives are added is often because the materials used are bad in quality, or the ordinary precautions are not adopted in the process of manufacture, and the preservatives are added to cover these defects. It is another matter when one considers the use of boric acid in butter. In hot, summer weather butter is apt to turn rancid very soon, and if this process can be readily prevented by harmless means, then it is a very desirable end to be attained. The Royal Commission on Foods in England have allowed the use of boric acid in butter, but assert that no preservatives of any kind should be allowed in milk. We hope the profession will heartily support the action of the Board of Health in their determination to secure a pure food and drink supply to the community.

A Hospital for Consumptives in Adelaide.

A conference of delegates from the Local Boards of Health of the State was held a few weeks ago and decided on a certain policy in regard to consumption. The decision was arrived at after a serious discussion, and was supported by nearly every medical officer of health present. The policy adopted was that Local Boards of Health should pay for the maintenance of curable patients in a new wing at Kalyra, to be built by the James Brown Trust, and that the Government should be asked to make provision for incurable cases at the old lunatic asylum on North Terrace or elsewhere. It also contemplated getting assistance from the general public by the formation of a local branch of the Association for the prevention of consumption. The alternative scheme was to appoint a deputation to wait upon the Government and ask it to undertake the whole work. Several local boards have already given their practical adhesion to the policy adopted by the conference, but the Port Adelaide Board has repudiated it. The resolution carried by the Port Adelaide Board is simply a reaffirmation of the scheme rejected by the conference, and the delegates plead for more consideration of the matter. Both schemes, however, were thoroughly discussed at the conference, and the matter was also thoroughly discussed by a committee of the local Branch of the British

Digitized by Google

Medical Association, who decided that Belair was a suitable locality, and that the extension of Kalyra was the most feasible scheme to bring forward. If there had been any danger to the residents of Belair or to the visitors to the National Park the above decision would not have been arrived at by a representative body of medical men. As to who should find the funds to carry out the work it is contended by the Port Board that the work is of sufficient importance to the whole State for the Government to undertake it. It would be necessary in any independent scheme to spend from at least £10,000 on buildings, and to pay about £3000 for annual maintenance; that would provide for 50 curable and 50 incurable cases. There would be not merely wards but administrative blocks to be built in two different localities; but there would have to be a medical officer appointed, in addition to nurses and servants. By carrying out the extension of Kalyra for curable cases, there is no initial expense, because the James Brown Trust is prepared to build a new wing, and the administrative expenses would be correspondingly reduced—£600 a year being sufficient to pay for the maintenance of 50 curable cases. In regard to the utilisation of the old Lunatic Asylum for incurable cases, nobody contends that it is an ideal place, but the Government has practically offered to utilise it for that purpose, and if the building can be made at all suitable with the expenditure of a few hundred pounds, it is better to take what can be got without delay than to put off indefinitely what is urgently needed. In the old asylum these incurable cases would be so isolated in its own grounds, and so supervised as to their habit, that they would constitute no danger to the public. Another point to be considered is that a home for incurable cases must of necessity be close to the city for the simple reason that the relations of the unfortunate patients who belong to the poorest classes cannot afford to pay train fares when they wish to visit them. It is to be hoped that the Port Adelaide Board will fall into line and see the force of making a possible present move in the right direction, instead of advocating an impracticable or, at least, distant scheme.

The Adulteration of Wines.

An exhaustive test of the wines sold in Sydney is being made by officers of the Agricultural Department under the provisions of the Wine Adulteration Act passed last session. Within the past month some 200 samples of wine purchased at various depôts have been analysed. The tests show that in the great majority of instances the wines are not adulterated with salicylic acid, that chemical being altogether prohibited in the manufacture of wine. In some instances, however, the presence of deleterious ingredients was detected, and it will rest with the Minister for Agriculture to decide whether or not the purveyors of the wine so adulterated shall be prosecuted. Some time ago it was stated that highly adulterated wines were being sold in the city, but the examination of 200 samples does not bear out this wholesale condemnation. In the opinion of the officers of the department, either there was no truth in those statements or else the fear of detection by the operation of the new Act has induced the manufacturers of adulterated wines to mend their ways.

Proposed Maternity Hospital in Hobart.

At a meeting of ladies and members of the general committee of the proposed Maternity Hospital, held in the Town Hall, Hobart, Mr. A. Morton moved—"That a special meeting of the ladies and general committee be called for Friday evening, the 19th inst., for the purpose of taking into consideration the following proposal—that the funds now in the hands of the committee be handed over to the committee of the General Hospital, Hobart, for the purpose of erecting a children's ward in connection with the General Hospital. The same, if agreed to, to be called the 'Victoria Children's Ward,' and that should the proposal be agreed to, the foundation-stone be laid on the day of the celebration of the centenary of the foundation of Tasmania." He said that when they first met it was felt that something should be done to perpetuate the memory of the late Queen Victoria. It was eventually decided that the best means of doing so was by the erection of a Maternity Hospital. As, however, only £500 or £600 had been raised to date, there was a very remote prospect of being able to erect the building. In consequence of that fact he had been impelled to give notice of motion that a children's ward should be erected at the General Hospital. An amendment—"That the committee continue its efforts until the end of the year, with a view to raising the funds required for the purpose of establishing a Maternity Hospital"—after a lengthy discussion was agreed to.

Increase of Insanity in Tasmania.

A writer in the *Hobart Mercury* says that Dr. McCall, the Chief Secretary for Tasmania, finds himself face to face with the problem that has presented itself to each of his predecessors during recent years, viz., the difficulty of

Digitized by Google

finding accommodation for the lunatics of the State. Additions have been made to the buildings at the New Norfolk Hospital, and extra accommodation has been provided, but yet the institution is crowded. Modern methods of treatment have achieved considerable success, but, of course, they are more costly and involve a much greater scope of accommodation than was required in the olden days, when "safe custody" was all that was sought to be achieved. Whether Ministers will decide to erect additional buildings at New Norfolk or adopt the suggestion that the idiots should be removed to New Town has yet to be declared, but it is quite certain that steps will have to be taken to relieve the overcrowding that now exists.

The Neglected Children.

The Hon. Dr. C. K. Mackellar recently delivered an address on "Child Life in Sydney." He reviewed the circumstances that surround the lives of the lower strata of society, and grouped the social antecedents of the 10,724 children who had been brought under the control of the State Children Relief Board during the 20 years ended April, 1901. About 65 per cent. of the children were orphans or had been deserted by their parents, and nothing was known of their antecedents, but about 20 per cent. were the children of the absolutely vicious or criminal. He noted the number of children whose parents were drunkards or in gaol, and asked what chance these unfortunates had of growing up good citizens. He spoke of the success that had attended the boarding-out system as practised by the State Children Relief Board. The children were placed in good homes, and the result of the home influence was to put them on the path that led to good citizenship. As the result of his experience he had been forced to the conclusion that where the parents were palpably vicious, cruel, or drunken, the State should not scruple to take the young children under control. He referred to the State Children's Amendment Bill, which passed through the Legislative Council last session and was now before the Legislative Assembly. It provided for the removal of neglected children from parental control, when by the habitual drunkenness, thieving habits, prostitution, or vagrancy of the parents it was clear the children were being led into a dissolute life. He concluded by referring to legislation in other countries on the subject.

A Literary Course for Hospital Nurses.

The credit for the establishment of the first literary course for training schools for nurses is due to Dr. Edwin Walker, of the Evansville Sanitarium in America. The class is organised like a literary club. The literature course is of three years' general extent—the first year chiefly American literature, the second English, and the third the world's great classics. The class meets from 8 to 10 p.m., second and fourth Tuesdays of the month, in the Sanitarium parlours. It is in charge of a director, who is competent as a teacher of literature and English. She makes out the programmes, apportions each of the nurses a share of special work, supplies the study books, and the supplementary reading for the intervals between meetings. The programme is opened with a roll call, for which is required a response of an incident from the life of the author under study, or a quotation from his works, or the name of one of his books. Then is given a lecture by the director on the life, character and works of the author under consideration, following which, for the development of tastes, is a general discussion by the nurses under the leadership of the directors, each member being required to give the results of her study-reading during the interval since the last meeting. After the lecture and discussion, there are readings from the author being studied, and items of current literary news. Following the reading comes a story-telling drill. A previously-appointed member tells the rest of a class a story she has been given to read, giving it in her own words, with any added charm she may be able to supply. The short stories are selected from our best magazines, and are usually of a humorous or dramatic turn. After the story-telling is a guessing contest designed to lighten the more serious work, and while chiefly amusing, to be instructive as well. The director provides, varying it at each meeting, sometimes quotations with words omitted from books of the evening's author, or portraits of prominent writers of the day, or of women writers, or of great novelists, or of book illustrations, or of portraits of actors in leading rôles of dramatised books. Before adjournment, the class indulges in a social half hour, during which questions are in order, and new work mapped out by the director, also the new books and popular authors are discussed, or perhaps something is read or told of an artist or a famous painting, and sometimes music is enjoyed.

The report of Dr. Millard, assistant medical officer of the Board of Health, Sydney, in connection with the dispute over the site for the proposed new hospital buildings at Gundagai, N.S.W., has been received. The report is lengthy, and deals with 13 sites. It sums up in favour of the glebe lands, which is the one selected by the majority of the hospital committee, but objected to by the public owing to its distance from town.

Digitized by Google

BRITISH MEDICAL ASSOCIATION NEWS.

PROCEEDINGS OF AUSTRALASIAN BRANCHES.

New South Wales.

THE regular monthly meeting of the New South Wales Branch was held at the Royal Society's Room on the 26th June. There were about 40 members present, Dr. Brady (the President) in the chair.

The PRESIDENT announced the election of the following members:—Dr. H. W. J. Marks, Sydney, and Dr. E. Feilchenfeld, of Hay.

The following were nominated for election:—Dr. W. Broad, Narrandera; Dr. E. M. Humphery, Bellingen.

The minutes of the preceding meeting were read and confirmed.

THE DEATH OF DR. NORTON MANNING.—The PRESIDENT said: Since last they had met a distinguished and highly revered member of the profession had passed away. Dr. Norton Manning, by the splendid work which he accomplished for a sadly afflicted portion of our community, had left a monument to his name which would make it honoured by generations to come. Always so correct, so dignified, and withal so courteous, and, like the true gentleman that he was, so considerate of the feelings of others, his was a personality which would have made him distinguished in any walk of life. He was sure they would join in his regret that this accomplished physician, this high-minded gentleman, was with them no more. He moved that a letter of condolence from the Branch be sent to the relatives of the late Dr. Manning in England. This resolution was carried unanimously.

Dr. MILLS drew attention to the reporting of the proceedings of the Branch in the *Australasian Medical Gazette*.

The PRESIDENT said that was a matter for the consideration of the Council, and he had no doubt the wishes of members would be met as far as possible.

Dr. SINCLAIR GILLIES read "Some Notes on Recurring Paralysis of the Third Nerve," and exhibited the patient.

Dr. GORDON CRAIG, for Dr. A. T. Vallack, read "Notes on a Case of Freyer's Prostatic Operation." (See p. 298.)

Dr. MAITLAND read a paper on "Perineal Prostatectomy." (See p. 300.)

Dr. SANDES read a paper on "The Anatomy of the Prostatic Region."

Dr. FIASCHI said the subject brought under their notice that night was an important one. They had heard three good papers read on the subject. For his part he sided with Dr. Maitland, and favoured the perineal route. He had operated on one case by Freyer's method, and had found no great difficulty in the operation, but after some six or seven days the patient had developed septic symptoms. He had met in his practice with some large prostates, but he might say that the majority of his cases had done well. With regard to the choice of methods, his mind was already made up in deciding for the perineal route. He had read a good deal on the subject. He did not remove a prostate unless the patient complained of very great pain, or there was purulent urine present. Given such conditions, he always operated. His experience was that after operation, for the first two or three weeks the patients suffered terribly. One man he had had under his care begged not to be touched, and requested to be left alone to die. He would like to ask those gentlemen who had had experience in such cases whether they had not had similar experience, and whether there was any means of minimising this torture.

Dr. HINDER thought Dr. Maitland's paper extended over too large a field for thorough discussion. He would confine his remarks to the comparison between the different operations. As to hæmorrhage, he thought it was about the same in perineal and suprapubic operation, the source being the same in both cases. It was not usually excessive at the time of operation, but considerable reaction soon set in. He thought it could be checked best by suprapubic opening, and described a satisfactory mode of plugging by passing a strip of gauze from the bladder through the urethra, and gathering up the remainder by means of a running thread, which could be pulled upon, per urethram, in case of bleeding, and thus exert pressure at neck of bladder. As to pain, he found it less by suprapubic method. Of eleven cases he had had, one had died, but none of the remaining ten complained of pain. There was no strangury, and clots collected in bladder were easily extracted by suprapubic wound. As to which was the best operation, many good men were in favour of each method, and he would not advocate one strongly to the exclusion of the other. As to urethral method, he thought Dr Maitland should not have condemned it so strongly, seeing that Bottini and others had had great success with this method. His (Dr. Hinder's) suprapubic cases had stood the test of absence of residual urine and control of urine, whereas the perineal cases were often followed by incontinence. His own opinion was that the suprapubic was the safer operation.

Dr. PALMER thought Dr. Sandes' contribution would have been more to the point last year when there was considerable controversy as to the anatomy of the prostate. He doubted if the organ was ever entirely removed. The hard prostates he found were improved by vasectomy or castration. He had noticed the shrinkage on post-mortem examinations.

Dr. BOWKER thought that if the sheath of the prostate were arranged as described by Dr. Vallack and Dr. Sandes it would be very convenient for surgeons. He considered the arrangement of the venous plexus constituted a reason for attacking by perineal route. He emphasised the importance of operating in an early stage in spite of Dr. Fiaschi's opinion that we should wait until the patient is in urgent distress. In comparing methods he understood that Bottini's urethral method could be done under cocaine anæsthesia, and that might in some cases weigh in favour of that operation. He should avoid opening the urethra if possible, and considered it dangerous and difficult to explore the bladder per urethram. He differed from the writers as to the disposal of the sheath, and in that he was supported by many authorities.

Dr. CRAIG, referring to Dr. Maitland's condemnation of Bottini's method, mentioned a series of 41 cases, with three deaths, which he considered very favourable. He thought the fine anatomical distinction between capsule and sheath were not of much practical importance. The capsule appeared an adventitious structure, produced by pressure of hypertrophied adenoid tissue.

Dr. CRAGO mentioned a case on which he had operated by the perineal route three years ago, the patient now had to micturate twice during the night, and was not unduly disturbed during the day. He had assisted another surgeon in many cases operated on by the combined routes. He personally preferred the perineal route to the suprabubic.

Dr SHAND rose especially to thank Dr. Sandes for his interesting anatomical paper, which was just what such a paper ought to be. He hoped to see it in print.

Dr. MAITLAND said he desired to express his appreciation of Dr. Vallack's and also of Dr. Sandes' paper. Dr. Vallack's anatomical explanation, which was corroborated by Dr. Sandes, of the absence of any

Digitized by Google

definite sheath on the vesical aspect of the prostate was correct. Mr. Freyer's explanation was incorrect. Dr. Hinder had mentioned Bottini's operation, and he had at a previous meeting of the Branch expressed his opinion of it. He thought that Bottini's operation was one to be absolutely condemned as a surgical procedure for the relief of the obstructive prostate. The operation was done in the dark. No drainage either for the bladder or the incision was provided for, and there was no means of knowing how long to make the incision, since one could neither see nor feel the area operated upon, all unanswerable objections to it. With regard to the advantage of controlling hæmorrhage in the suprapubic operation, he decidedly differed from Dr. Hinder. In the perineal route it was easier controlled by plugging, that route possessing the additional advantage that bleeding points could be clipped and tied, which was not possible in the suprapubic operation. If it were necessary to cauterise the prostate, and it was sometimes, to make a low level urethra, then a much more surgical operation was to do either a suprapubic cystotomy and cauterise, aided by vision and touch, drainage being provided, or to cauterise from the perineum. In a given case of obstructive prostate, whether the operation was done suprapubically or from the perineum, only affected the recovery from the operation; the patient's subsequent genito-urinary health depended on the amount of pathological change that had already taken place in the urinary organs; the greater the change the less likelihood of good urinary health. The opposite also applied, a condition of affairs which was a powerful argument in favour of early operation.

Council Meeting.

THE Council met at the Association Rooms on Friday, July 3rd, 1903. Present: Drs. MacCormick, Crago, Rennie, Hankins, Hinder, Fiaschi, Abbott, Worrall, Newmarch, Dick, Foreman. The minutes of the previous meeting were read and confirmed.

Members elected: Dr. E. M. Humphery, Bellingen; Dr. W. Broad, Narrandera.

Letter was read from Dr. Fiaschi with reference to Dr. Devlin's application for admission to the Branch.

The HON. SECRETARY reported that he had written to the Hon. the Attorney-General *re* the regulations about the fees for medical witnesses, and to the hon. secretary of the Medical Congress about the appointment of local hon. secretary; also that the Balmain Dispensary had not yet dealt with the question of the A.N.A.

Letter received from Dr. Muskett.

Resolved: That the Council desires to express its strong disapproval of the methods adopted by Dr. Muskett and his publishers in advertising the "Australasian Medical Guide," but in view of Dr. Muskett's repudiation and explanation contained in his letter of June 27th, decides to take no further action.

Letter received from Mr. Page, enclosing the report and balance-sheet of the Australian Ambulance Association.

Resolved—"That the previous resolution of the Council with reference to the Australian Ambulance Association be re-affirmed."

Letter was received in reference to one of the Accident Insurance Societies.

Resolved—"That the hon. secretary interview the manager of the society."

Letter was read from Dr. Gunson, of Adelaide, forwarding the new rules of the South Australian Branch.

Letter read from the general secretary of the Association, asking for the nomination of two representative members to the Council of the Association.

Nominations to be made.

Letter read from a country member *re* insurance fees.

Letter read from the president of Council of the British Medical Association, expressing regret for the inconvenience caused through the general secretary having applied direct to members for their subscriptions, and stating that in future subscriptions from this Branch would be collected as heretofore.

South Australia.

The 24th annual meeting was held at the Adelaide University on Thursday, June 25, 1903. The retiring President (Dr. A. A. Hamilton) took the chair at 4 p.m. There was a fair attendance, which included several visitors.

The minutes of the last annual meeting were read and signed.

The annual report of Council and treasurer's statement were taken as read and adopted.

24TH ANNUAL REPORT OF THE COUNCIL, JUNE, 1903.

The most important event of the past 12 months has been the reorganisation of the Association, and the new regulations are being gradually brought into force.

Your Council herewith presents for your consideration the new "Branch Rules," founded almost entirely on the model suggested by the Council of the Association.

Your Council feels that it is of vital importance to our Australasian Branches to conserve the interests of the *Australasian Medical Gazette*, in which appear the official records of our transactions. The existence of the *A.M. Gazette* would be imperilled if all the members of the Australasian Branches did not continue to subscribe to it; therefore, a rule has been included which provides that the annual subscription to our Branch, and the privileges conferred thereby, shall remain unaltered as heretofore. By this action we are supporting the efforts in the same direction of our sister Branches, and if this annual meeting approve we shall then unite with them in endeavouring to obtain, if possible, the consent of the Association in England. With considerable success we have attempted the suppression of advertisements of an objectionable so-called "medical" character.

The Branch has sustained its position in regard to numbers, finance, and attendance at meetings. The Council congratulates the country members on the part they have taken in the year's transactions. Two of our most interesting meetings were occupied by papers provided by them. It is very gratifying also, and of good augury for the future of our Branch, that so many papers, reaching a high standard of excellence, have been contributed by the younger members.

During the year we have had to mourn the deaths of Drs. Brookes, Popham and Walker.

As in past years, our thanks are due to the University for the use of rooms for our meetings.

The following papers have been read during the year:

Dr J. C. Verco—"Appendicitis."
Dr. F. Magarey—"Two Cerebral Cases."
Dr. TODD and Dr. Sweetapple—"Placenta Prævia."
Dr. Reissmann—"Leucocytosis."
Dr. Hone and Dr. H. Evans—"Acute Colitis."
Dr. Hamilton—"Haffkine's Prophylactic."
Dr. J. A. G. Hamilton—"Complicated Hysterectomy."
Dr. Lendon—"Congenital Pyloric Stenosis."
Dr. Marten—"Sequelæ of Syphilis."
Dr. Hayward—"Some Medical Cases."
Dr. Reissmann—"Morphine Tablets"
Dr. C. H. Souter—"Midwifery Practice and Experience."
Dr. J. A. G. Hamilton—"A New Operation."
Dr. Newland—"Finsen Light-Cure."
Dr. J. C. Vergo—"Myelopathic Albumosuria."
Dr. Reissmann—"Diabetes."

A "Clinical Evening" was also successfully held.

Digitized by Google

STATEMENT OF RECEIPTS AND EXPENDITURE FOR THE YEAR ENDING JUNE 30TH, 1903.

Dr.	£	s.	d.
To Balance in Savings Bank, June 25th, 1902	236	16	2
,, Interest	5	1	1
,, Subscriptions	305	3	0
	£547	0	3

Cr.	£	s.	d.
By Subscription to B.M.A.	132	6	0
,, ,, A.M.G.	116	19	0
,, Exchange	1	11	5
,, Printing and Stationery	11	4	6
,, Clerical Assistance to Hon. Secretary and Stamps	9	3	6
,, Gratuities to University Porters ..	1	10	0
,, Funeral Wreath	1	1	6
,, Balance in Savings Bank..	273	4	4
	£547	0	3

ASSETS.

	£	s.	d.
Balance in Bank	273	4	4
Outstanding Subscriptions	35	14	0
	£308	18	4

LIABILITIES.

	£	s.	d.
Subscriptions to B.M.A.	126	0	0
,, A.M.G.	35	5	0
Expenses for ensuing half-year (estimated)	10	0	0
	£161	5	0

Audited and found correct, A. E. WIGG.
W. T. HAYWARD, Hon. Treasurer.

The new Branch rules were adopted after slight alteration.

Election of officers:—President, Dr. M. Jay; vice-president, Dr. C. W. Hamilton; hon. treasurer, Dr. W. T. Hayward; hon. secretary, Dr. J. B. Gunson; ordinary members of Council (three), Drs. E. Glynn, B. Poulton, and G. C. Hayward; hon. auditor, Dr. A. E. Wigg; local editor of *Australasian Medical Gazette*, Dr. H. S. Newland.

The Parliamentary Bills Committee was re-elected as before.

Presidential Address.—Dr. A. A. Hamilton then delivered the annual address (see p. 291).

The incoming President (Dr. M. Jay) then took the chair, and thanked members for the honour conferred upon him.

Votes of thanks to retiring officers and to the Council of the University were passed before the meeting ended.

The annual dinner was held in the evening, and there was a good attendance.

Queensland.

A MEETING of the Branch was held on Friday, July 3rd, Dr. Hopkins (president) in the chair, and an attendance of 14 members.

Dr. FLYNN exhibited photographs of a patient suffering from molluscum fibrosum.

Dr. Malaher (of Beenleigh) was nominated and Dr. Thornton (of Ipswich) elected to membership of the Branch.

The recommendation of the Council was adopted: "That the Pharmaceutical Society be asked to confer with the Council of the Branch with reference to the sale of narcotic drugs by chemists."

Dr. JACKSON read a paper upon "Freyer's Operation for the Total Removal of the Prostate," and exhibited specimens.

Dr. ROBERTSON read a paper upon "Aural Discharges," and an interesting discussion ensued.

Dr. HIRSCHFELD gave notice of motion: "That the attention of the Health Commissioner be called to the increase in the number of cases of cerebro-spinal meningitis with a view to its being placed among the notifiable diseases."

Victoria.

THE ordinary monthly meeting of the Branch was held on June 24th.

The President (Dr. Gresswell) asked permission to introduce Mr. Cameron, M.R.C.V.S., to the members, to demonstrate his pathological and microscopic specimens of swine fever.

After a minute description of the pathology and symptoms of the disease, Mr. Cameron exhibited the excellent specimens he had with him. They plainly showed the lesions present in swine fever to be situated principally in the skin, stomach and around the ileo-cæcal valve.

The PRESIDENT (Dr. Gresswell) asked for a hearty vote of thanks for Mr. Cameron's excellent address and for his specimens and description of the disease and the methods to be adopted to deal with swine fever. He (Dr. Gresswell) had seen swine fever frequently in England in the days when slaughtering was the principal means of coping with the spread of it; but the efficacy of recent legislation, which prevented the movement of pigs from the possession of any person under 28 days, had been proved beyond a doubt. The aggregation of animals was a fertile source of propagating the spread of disease, and had been noted with regard to glanders and influenza, particularly after fairs and markets. In this case the City Council took possession of this batch of pigs at the abattoirs in order to prevent the spread of the disease, and everything was done that ought to be done in such cases. It was absolutely necessary to prevent the movement of pigs from one part of country to another. Animals fed on decomposing matter ran more risk when exposed to infectious diseases and were more likely to succumb. When measures were stern and rigid the results were always proportionate. He would like to ask if black pigs were affected as badly as other kinds of pigs. The post-mortem appearances were very like those of typhoid. He understood that this disease was at first called a pneumo-enteritis, and if he were not mistaken there was another disease amongst horses also called pneumo-enteritis. About four months ago Mr. Clayton (Town Clerk of Melbourne) wrote to the Public Board of Health that a disease had been discovered amongst the pigs at the city abattoirs, and Mr. Cameron, M.R.C.S., was asked to investigate it. Every facility was given by the City Council, and Mr. Cameron traced the disease out after travelling to numerous places in his investigations, but it was not until last Saturday, when some very acute cases were found at the city abattoirs from which the pathological specimens shown at this meeting were obtained. Dr. Kelly at once made a bacteriological investigation, and made cultures and tests with the result that the micro-organism was thoroughly recognised, and now the disease was authoritatively proclaimed to be swine fever.

Mr. KENDALL, sen., M.R.C.V.S., said he had quite agreed with what Mr. Cameron had said, but would like to emphasise the necessity of improving the insanitary condition of piggeries; in many places the filthy feeding and bad troughs were a disgrace.

Digitized by Google

Dealing with the question, this disease affected the pig-raising industry very seriously, and spreads very rapidly. Separator milk tanks were incubators for various kinds of organisms. Mr. Kendall had seen several of the pigs affected with this disease, and he had no hesitation in declaring that they were suffering from swine fever, and he wished to express his admiration for the manner in which Mr. Cameron had investigated this outbreak and the care he manifested before proclaiming the disease to be swine fever.

Mr. KENDALL, jun., M.R.C.V.S., said he had not seen any swine fever in South Africa, but whilst studying bacteriology at King's College he became acquainted with the organism producing the disease, and the specimen on view to-night was identical with what he had seen in England. He had only seen these cases now reported, and could not hardly add any suggestions to those of Mr. Cameron. In America the means to suppress the disease were strict and drastic, for they slaughtered every animal with any sign of disease, and also all contacts, and compensated the owners on a basis slightly lower than the value of the animal.

Mr. CLAYTON (Town Clerk of Melbourne) said that on March 6th he got notice from the inspector at the city abattoirs of a disease amongst some pigs that had been sent to be slaughtered. Prompt action was at once taken. The pigs were seized and condemned, and this had been done in every case since that time. Intimation was also given to the Stock Department and the Board of Public Health, and thus these bodies were put in action to trace out and investigate the nature of the disease, and, if possible, to locate where it came from. He assured the gentlemen present that owing to the precautions taken all possible risk or danger to the public from the abattoirs had been avoided, and that the City Council would take every precaution in their power to prevent the spread of the disease.

Dr. SLOGGET had seen cases of pseudo-diphtheritic disease amongst pigs at Geelong, and had been associated with Mr. Cameron, M.R.C.V.S., in investigating the causation of it, and they had come to the conclusion that it was due to feeding the pigs on raw offal. They also found that pigs fed on cooked offal did not get this pseudo-diphtheritic disease.

Dr. WEIGALL asked if the community was likely to be endangered by swine fever, either by eating the flesh or any other means; and was an outbreak of typhoid fever in human beings likely to be the outcome of swine fever?

Dr. HENRY expressed his gratification to Mr. Cameron for his interesting address, and asked what arrangements were made in regard to destruction of the bodies of pigs suffering from swine fever after slaughtering. Were they cremated, or how were they disposed of? Also, would the soil communicate the disease to new animals if it were contaminated by diseased animals beforehand?

Dr. FOX asked whether this was the first outbreak of swine fever in this country, and whether it was likely other outbreaks could have occurred and not been detected, and how was it introduced, and what was its origin?

In reply, Mr. CAMERON said that as the disease was not communicable to man, the results of human beings partaking of the flesh of diseased animals were only such as might be expected to follow the eating of the flesh of an animal which had suffered from hæmolysis and fever. Nevertheless, it was advisable that no carcasses of swine fever animals should be passed for use by the public, as the uncooked scraps and refuse of these carcasses, when taken from the restaurants and such places to piggeries, frequently furthered the spread of the disease. At the Melbourne city abattoirs the plan he had advised was to condemn the carcass and destroy it by boiling-down or rendering, the proceeds of such rendering being paid to the owner. In some of the States of America compensation up to three-fourths of the value was paid on destruction as "contacts" of healthy animals. There were many accessory precautionary measures to be adopted. Some of the most important of these it were within the power of every pig-owner to attend to—such as the provision of plentitude of air, light, warm, clean shelter, sound, wholesome food and water, the observance of cleanliness and the avoidance of the crowding of many pigs in small enclosures, where they continually root and sniff amongst their own and each other's excreta. As to the starting point of the outbreak in Victoria he had no reliable information, except that two of the diseased pigs he had examined were of a lot which was landed in Victoria from New South Wales during strike week; but he was convinced that the disease was in Victoria prior to that time, and it was possible that those pigs had contracted the disease after landing. The first pigs found to be affected came from Gippsland, and there were apparently infected centres along both the south and east Gippsland lines.

Owing to the lateness of the hour, the papers of the evening by Drs. Cuscaden and Weigall were postponed.

UNIVERSITY INTELLIGENCE.

University of Sydney.—The following candidates passed the final examination for the degrees of Bachelor of Medicine and Master of Surgery, held at the beginning of Trinity Term:—Henry Patrick Blaney, Eleanor Elizabeth Bourne, William Henry Elworthy, Edward Bede Lucien Fitzpatrick, Charles Ernest Flashman, William Charles Grey, William Digan Laugton, Oliver Latham, John King Osborne, Henry Frank Sadler, James Frederick Watson, John Francis Walton.

Melbourne University.—At a meeting of the University Council on July 7, a letter was received from Dr. Martin announcing his appointment as director of the Jenner Institute of Preventive Medicine in London, and resigning his post of Professor of Physiology at Melbourne University. The Council accepted the resignation with regret, and directed that a letter be sent to Dr. Martin congratulating him on his appointment, and expressing appreciation of the valuable services he had rendered to the University. Professor Martin's work in the third term will be done by Dr. J. Wilkinson, and the examinations will be conducted by Dr. Williamson and Mr. Fielder. The arrangements for a new appointment have been entrusted to a sub-committee.

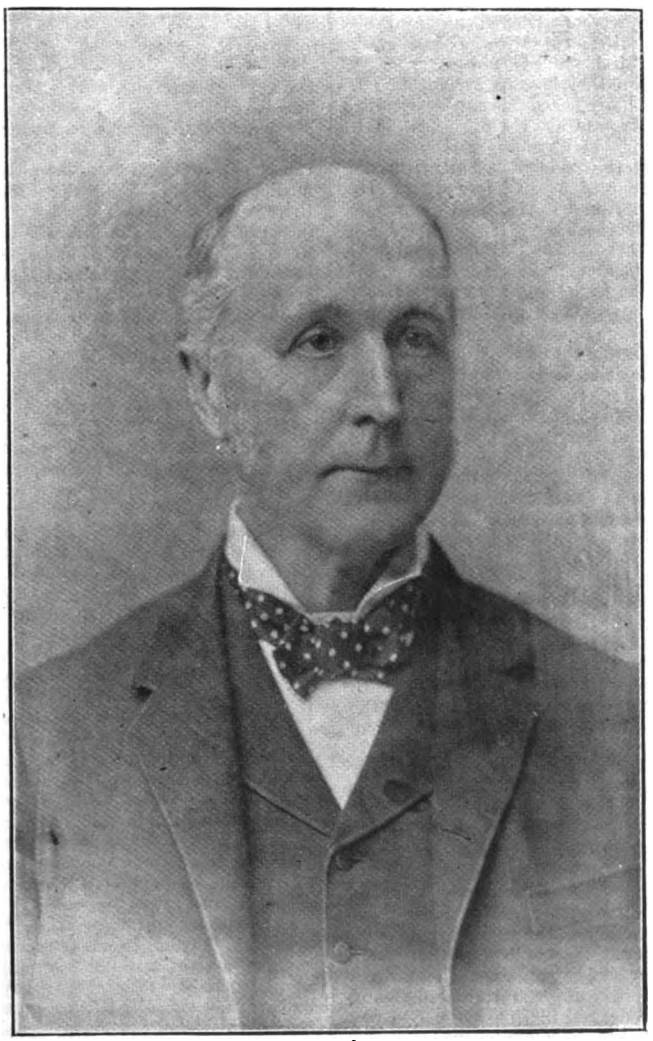
Dr. Bain, for many years a resident of Clare, South Australia, and highly esteemed for his genial and philanthropic disposition, died at Adelaide on June 25th. He went to Clare in 1864 to join Dr. Davies in practice, and resided there until some three or four years ago. The late gentleman continued his profession at Port Germein, but his health failing, he came to Adelaide for medical treatment. Dr. Bain was one of the pioneers of the vinegrowing industry in the district. He did not confine his liberality to the town of Clare, as he donated £1000 to St. Peter's Cathedral Building Fund. One of Dr. Bain's truest and best friends has said of him: "He was the only man I ever met who never thought of self." His remains were buried at Clare on June 27th.

Digitized by Google

OBITUARY.

FREDERICK NORTON MANNING, M.D. (St. Andrew), 1862; M.R.C.S. (Eng.), L.S.A. (Lond.), 1860, Sydney.

IT is with much regret that we report the death, on the 18th June, of Dr. Frederick Norton Manning. By this event not only the medical profession, but the entire community, has lost one who for many years has quite held a unique position in this State. Dr. Manning was born in Northampton in 1839, and came to Australia as a surgeon in the Royal Navy in the brig "Esk." In this capacity he saw service in the New Zealand war, and was present at the first attack on the Gate Pah, Tauranga, when the British force was repulsed, Lieut.-Colonel Hamilton and nearly all the officers being killed, and Dr. Manning himself having a narrow escape, a wounded sailor whom he was carrying to a place of safety being shot dead. In 1867, when his ship was in Sydney Harbour, he applied to the late Sir Henry Parkes for permission to visit and inspect the asylums, of which there were then two, one at Parramatta and one at Tarban, or Tarban Creek, now Gladesville. It was his visit which ultimately led to Dr. Manning being the first to be appointed to the position of Inspector-General of the Insane, a post which he filled with such distinction that his services and reputation were acknowledged beyond the borders of New South Wales. It says much for the sagacity and insight of Sir Henry Parkes that he proposed to Dr. Manning that he should obtain his discharge from the service to which he was attached and accept the principal office in our Department of Lunacy. On Dr. Manning assenting to this he was commissioned to visit Europe and America to inquire into and report upon the whole subject of the care and management of the insane, as illustrated by the plans of construction, economic arrangement, and systems of treatment in the best known asylums. He was accredited to the Imperial Government, with a request that he might be officially introduced to foreign countries. He was away for about nine months. He visited England also in 1875 and 1887, and on each of these occasions issued on his return a very full and valuable report. Gladesville was the first to receive his attention. At that time the asylum buildings were, to use his own words, "grim without and comfortless within." Dr. Manning, in addition to his great skill in organising and systematising the internal arrangements of the asylums, displayed much taste and judgment in treating their natural surroundings. In their present day condition they stand as a monument to his genius. Later, Dr. Manning designed the hospitals at Callan Park, at Kenmore, near Goulburn; this last may be regarded as representing his latest views on what such an institution should be. Dr. Manning was President of the Board of Health for some time, and at his death was an ordinary member of the Board. He was the first president of the Australasian Trained Nurses' Association, in the organising of which he took great interest, and to the benevolent fund in connection with it he contributed liberally. He was a trustee of the National Art Gallery and a director of the Equitable Life Assurance Society of the United States. He had



THE LATE DR. F. NORTON MANNING,
Died June 18th, 1903.

Digitized by Google

held the office of lecturer in psychological medicine in the University of Sydney, and was an hon. member of the Medico-Psychological Association of Great Britain and Ireland. With the late Sir Alfred Roberts, Dr. Manning was associated in supervising the plans and construction of the Prince Alfred Hospital, and he was for a time hon. secretary and a member of the board of that hospital.

Dr. Manning was a man of handsome, refined and somewhat ascetic appearance, and he had a mind which in every way suited "with this fair and outward character." Those who were privileged to enjoy his friendship had for him the most affectionate regard. Courteous, gentle and kind, he did not carry these qualities to the point where they become weaknesses: if the occasion required it he asserted his authority with the utmost firmness. He was always dignified. His authority was never exercised with undue harshness, and so well could he combine the *suaviter in modo* with the *fortiter in re* that his reproof never left a sting. He was a man of singular personal charm, and one whose influence for good was far reaching. He ennobled the profession to which he belonged. Cultured and well read, a man of refined taste and mature judgment, his opinion and advice were eagerly sought after and freely acted upon. His religion was illustrated by his life, for he went about doing good.

The services of Dr. Manning to his adopted country we do not consider were adequately remunerated. He resigned the Inspector-Generalship of the Insane in February, 1898, but this step was probably hastened by the action of the Public Service Board. After a holiday trip to England he returned to Sydney and engaged in practice as a consultant in mental cases, where his advice was much valued.

Some three years ago he had an illness, and since then his health was never really satisfactory. About 18 months ago severe gastric symptoms set in, but after careful treatment these subsided, and he gained considerable weight and improved so much that the hope was entertained that his trouble might only have been of a gouty nature. Towards the end of last year the gastric symptoms, which had never quite disappeared, began to trouble him again, and gradually increased in severity until the end. His condition was anxiously considered and the prospects of surgical interference discussed on more than one occasion, but it was decided that the latter would not be to his advantage. He passed away quietly about 1 p.m. on June 18th in the presence of a few of his oldest and dearest frends. Dr. Manning was unmarried, and left no relatives in the State, but he has two brothers and three sisters in England. His body was interred at Gladesville, on June 20th, in a spot selected by himself some years ago. The funeral was attended by a large and representative gathering, including leading members of the bench and bar, the medical profession, and mercantile community. The coffin was carried from the hearse to the grave by senior wardsmen chosen from the various asylums. This kindly act originated among the men themselves, who desired in this manner to pay their last tribute of respect to their late beloved chief.

Dr. William Crozier, Medical Referee of the A.M.P. Society, died at Wyalong on June 14th from pulmonary hæmorrhage. Deceased came to this State some two years ago for the benefit of his health, and intended to start on his return voyage to Ireland on July 16th. His funeral at Wyalong was largely attended.

FOR SALE.—First-class Angus Medical Sulky and Harness; perfect condition.—Dr. C. MacLaurin, 155 Macquarie-street.

CORRESPONDENCE.

London.

(FROM OUR OWN CORRESPONDENT.)

Notification of Measles—Semi-Teetotalism—Public Health Congress at Liverpool—Medical Education in Germany—The Hospital Problem—The Recent Epidemic of Smallpox—The Clinical Value of Leucocytosis.

AT a recent meeting of the London County Council it was resolved to regard measles as a dangerous infectious disease, and to take steps under the provisions of the Public Health Act of 1891 for its suppression. There can be no doubt that from the point of view of preventive medicine this is a step in the right direction, as probably there is no infectious disease which levies such a high death rate among the infantile population. Its almost universal prevalence will make the cost of notification a heavy item of expenditure, but the money will be well spent if it enables the authorities to obtain such early and accurate knowledge of fresh cases that recourse to measures calculated to check the spread of the disease may have some chance of success.

A society has recently been established in London under the title of the "Semi-teetotal Pledge Association" which has for its object the abolition of drinking habits between meals. It is distinctly stated that the association desires in no way to interfere with the aims and objects of total abstinence, though its own aspirations are obviously a step in that direction. Any system that may tend, in however small a measure, to limit the prevalent and pernicious influence of alcoholic excess deserves the hearty support of all who have the interests of the public health and of the national welfare at heart. To no class of the community should the aims and objects of this association appeal more strongly than to medical practitioners, because by none are the evils which it is sought to mitigate more intimately known. The habitual drunkard has become, under the provisions of the new Licensing Act, a social scourge with which the law will now be able to deal more efficaciously than ever before; but this new association aims at reducing the number of that enormous multitude who do not offend the public sense of decency by overt exhibitions of inebriety, but who, none the less, deprave their own tissues and sow the seeds of untold miseries for future generations by promiscuous and casual drinking. There are certain businesses in which no bargain can be completed, according to present-day use and wont, without the cementing influence of the "barley bree"; there are some persons to whom no occasion of joy, or even sorrow, arrives without claiming as its privilege an appeal to alcohol; there are many to whom the fatigues and worries of daily life afford an excuse for bibulous habits which they persuade themselves into believing are so moderate as to be harmless either to themselves or others. The damage to the individual and to the race which must inevitably follow such practices is incalculable, and its greatest danger lies in the gradual and obscure steps by which it pursues its respectable but relentless course through metabolic insufficiency to structural disease. A moderate amount of alcohol taken with meals probably hurts no healthy man, and no wiser or more commendable desideratum could be set before itself by any association than an attempt to confine the alcoholic habits of the country within these safe limits.

The Royal Institute of Public Health has accepted an invitation from the Corporation of Liverpool to hold its

Digitized by Google

next annual congress in that city from the 15th to the 21st of July. The business of the congress will be transacted at University College, and will be carried on under the following sections:—(*a*) Preventive Medicine and Vital Statistics; (*b*) Municipal Engineering; (*c*) Child Study and School Health; (*d*) Sanitation of Congested Areas and Re-housing the Dispossessed; (*e*) Tropical Sanitation; (*f*) Bacteriology and Comparative Pathology; (*g*) Port Sanitary Administration, and (*h*) Municipal and Parliamentary Hygiene. Delegates will be furnished with a well-illustrated descriptive handbook, and full opportunities will be given them to inspect the sanitary municipal undertakings of the city. Many distinguished men have already intimated their intention of being present.

Professor von Bergmann had recently an audience of the Emperor William in connection with the scheme for erecting in Berlin a special building for the School of Medical Higher Education. He has since received the following letter from Herr von Valentini, of his Majesty's Prussian Civil Cabinet:—"His Majesty the Emperor has verbally expressed, in reference to the audience of the 2nd instant, his most lively satisfaction at the project, and welcomes the idea of erecting a special building in Berlin as a centre and support of the Medical Institution of Higher Education, and also of calling it 'The Empress Frederick House for Medical Higher Education,' in lasting memory of the efforts of her Majesty the late lamented Empress and Queen Frederick in this province. His Majesty wishes the pious enterprise all success, and awaits with pleasure the reports on this meritorious work. By command of his Majesty I have the honour to make this communication to your Excellency."

At a meeting of the Hospital Association, held at Caxton Hall, Westminster, on March 3rd, Sir Henry Burdett delivered to a large and interested audience an address on "The Hospital Sites and Population in London." Sir Henry discussed whether any and, if so, which of the large hospitals ought to be moved to new situations in less congested districts than they now occupy, or alternatively, into the country. He showed that the whole of the population within the postal district of London was well supplied with hospital accommodation. He suggested certain amalgamations of existing hospitals as being desirable in order to equalise the hospital supply in different districts. Various speakers referred to the powers of the London County Council in respect of municipalising hospitals, but it was generally admitted that the transplantation of ancient charities was a question that must be approached with great judgment and wise discrimination. The problem, though a difficult one, is rapidly becoming urgent, and will demand skilful and gentle handling for its ultimate solution.

Dr. Reginald Dudfield has issued a comprehensive report on the outbreak of smallpox in Paddington in 1901-1902. The epidemic extended over 14 months, and included 117 cases of the disease. At all ages, the fatality of cases in unvaccinated males was 60 per cent., in females 28·5 per cent.; in those vaccinated in infancy the fatality was 8·5 for males, and 12·7 per cent. for females; in the re-vaccinated 40 per cent. for males, and nil for females. All cases occurring in vaccinated persons under 15 years of age recovered; of those occurring in the unvaccinated 50 per cent. died. Dr. Dudfield reckons that the attack ratio of the disease was 1·77 among the unvaccinated, 0·79 among the vaccinated, and 0·41 among the re-vaccinated; or, taking those actually known to have been exposed to infection, the ratio amounted to 162·8 per 1000 unvaccinated, 79·1 vaccinated, and 1·77 re-vaccinated. No more striking statistics could be conceived to emphasise the value of preventive inoculation.

An interesting paper was recently read before the Birmingham Branch of the British Medical Association by Professor Muir, of Glasgow University, on the significance of leucocytosis. He pointed out that polymorphonuclear leucocytes are formed from neutrophile myelocytes in the bone-marrow, and enter the blood fully formed. In the normal marrow there is a reserve store of polymorphonuclear cells, and when these pass into the blood a marked leucocytosis takes place very rapidly. When there is a continuous drain on these cells the myelocytes proliferate quickly, and come to constitute an abnormally large proportion of the marrow. The polymorphonuclear leucocytes in the blood may thus be regarded as cells in process of transit from the marrow to the tissues, and their excess is to be looked upon as evidence that some unusual demand on the part of the economy is being responded to. Various chemical substances are known to produce a leucocytosis, and Professor Muir pointed out that he had proved experimentally that they do so by causing a movement of polymorphonuclear cells from the marrow into the blood. He thought that it might be accepted that "ordinary leucocytosis signifies the presence of substances in the blood which exert a positive chemiotaxis on the neutrophiles of the marrow, and that this stimulus is being responded to." According to this view, toxic and inflammatory leucocytosis are the same in nature. Clinically it is found that the bacteria concerned in the production of inflammatory and suppurative conditions are the commonest sources of the chemiotactic substances on which the leucocytosis depends. On the other hand, other organisms such as the bacillus of tubercle or of typhoid fever, or the malarial parasite, do not attract the neutrophiles locally, and therefore in cases where there is a pure infection with either of these organisms a leucocytosis does not ensue. This gives an important diagnostic value to leucocytosis as a symptom of disease, but it must always be borne in mind that suppurative processes may coincide with other bacterial infections, and so invalidate the value of leucocytosis as a differentiating factor. In conditions where there is a rapid onset of pyrexia with marked leucocytosis and no evidence of the presence of any other explanatory cause, the leucocytosis points to the likelihood of the existence of some deep-seated inflammatory or suppurative condition. Thus, in obscure cases, the diagnosis between appendicitis and typhoid fever may be much assisted by a leucocyte count. In uncomplicated acute tuberculosis the leucocytes show little deviation from the normal, but whenever cavitation produces a mixed infection an increase in the polymorphonuclear leucocytes is the rule. Here we have a means of estimating the stage which such a disorder as this has reached. In malaria, especially after the disease has lasted some time, the polymorphonuclear leucocytes retain their normal proportion, but there is a marked percentage increase of the large mononuclear cells. Here again a leucocyte count materially aids the diagnosis. From the prognostic point of view, leucocytosis may also afford suggestive information. Its presence is a favourable omen, as indicating a satisfactory response to the demands of the body, when it occurs under circumstances which lead us, from experience, to look for such an effort on the part of nature. On the other hand, in such conditions of disease its absence has a distinctly unfavourable significance, and this is intensified if myelocytes appear in the blood. The toxins are somehow interfering with the leucocyte supply and permitting an undue escape of myelocytes from the marrow. Such a condition of things is not infrequently met with

Digitized by Google

in cases of hæmorrhagic smallpox, and may be taken as evidence that the normal neutrophile reaction which should produce a leucocytosis is paralysed by the severity of the toxic action of the disease, assisted in many cases by the poor resisting power of the patient. In cases of asthma, and in certain skin affections which are known to be associated with eosinophile leucocytosis, a close parallel can be drawn, both as regards formation and mode of reaction, between the polymorphonuclear leucocytes and the eosinophiles. the only important difference between them being that they are attracted by different chemiotactic agents. Recent observations go to show that in eosinophilia there is an increase of eosinophile myelocytes in the marrow, just as in polymorphonuclear leucocytosis there is an increase in the neutrophile myelocytes. In cases of diceases which are accompanied by an increase in the blood of the lymphocytes, it is still doubtful whether chemiotaxis plays an important part; but as regards the large mononuclear cells we have evidence in malaria that the parasite of that disease acts chemiotactically on them, and brings about a marked increase in their number in the blood. Professor Muir's paper, which is thus summarised, does much to enhance the value of leucocytosis as an aid to diagnosis and prognosis. It emphasises the need for frequent and careful blood examination in all forms of disease.

THE STERILISATION OF LIGATURES AND SUTURES.

(To the Editor of the Australasian Medical Gazette.)

SIR,—In an article on "Hernia in Elderly People" in your last issue, Dr. MacLaurin raises the question of material for ligatures and sutures. I should be glad if you could allow me some space for a few comments thereon. I may say that for ten years I have taken the greatest interest in the preparation of ligatures and sutures, and have directed a good deal of reading, personal inquiry, and experiment in this direction. During a stay of 18 months in Britain I visited many hospitals, and my first questions were, "What ligatures do you use?" and "How do you prepare them?"

Dr. MacLaurin dismisses silk with these words, "My own experience with silk is small, and not favourable." That is *not* the fault of the silk. During my six months' residence in the Rotunda Hospital nothing but silk was used either for ligature or suture. During that time many hundreds of silk ligatures and sutures were used, and not only did no wound suppurate, but in no instance had a stitch to be removed before its due time on account of setting up "irritation," and this was true even of cases where the perinæum had been stitched for rupture during childbirth. These facts I can vouch for from personal observation. One of the nursing staff assured me that during a residence of over two years in the Hospital she had never seen a stitch abscess. It is only fair to say that in the Rotunda the aseptic technique was carried to a perfection probably impracticable in a large general hospital.

It is true that in occasional cases silk has been known to set up an abscess long after the wound has healed, but such cases, though reported from time to time, are proportionately rare. Where suture or ligature sets up trouble within a week or two after operation I believe this to be due to the introduction of organisms of low virulence which inhabit the patient's or surgeon's skin, and are only able to slowly attack tissues strangulated by sutures. These produce a gradual suppuration, without rise of temperature or signs of reaction about the wound. In a coverslip preparation from such a case I have found it difficult to detect any organisms; only odd cocci or bacilli were revealed after a search.

Dr. MacLaurin next refers to "spun celluloid" as "a recent invention which seems to possess both the advantages and disadvantages of silkworm gut." Celluloid thread is not spun celluloid at all; it is not a very recent invention, and it does not in the least resemble silkworm gut.

It was introduced by Pägenstecher, and is linen thread impregnated with some substance which renders it non-absorbent. Its advantage is that it is the nicest of all sutures to handle, being firm yet very pliable, fine, strong, and not liable to become sodden as silk is. It is the best of all for intestinal work. I believe I was the first in New South Wales to use this thread, which I had imported from Germany.

The problem involved in the sterilisation of catgut is exceedingly important, but difficult and intricate. The more one regards it the more formidable does it appear. I will not take up space by dilating upon the factors involved. Certainly no manufacturer should be entrusted with the process. Every ligature used should be prepared by somebody with a proper knowledge of bacteriology, and even the best bacteriological tests may be quite fallacious. A process which will render forty-nine samples aseptic may entirely fail with the fiftieth, owing to the presence of more highly resistant germs; but one may safely say that anyone who uses chemical methods of disinfection where reliable heat methods exist is marching in a retrograde direction. I will say this, however, that the method which Dr. MacLaurin advises is an ideal one, from the point of view of the hospital dresser, requiring as it does a minimum of time, trouble and brains. I used the method for a short time, but on finding that in a sample of No. 4 gut, which had lain in biniodide spirit for two months, the eosin with which the solution was coloured had not stained the centre of the gut, I immediately abandoned the method and threw away all the gut so prepared.

I have also tried the formalin method which Dr. MacLaurin accuses of making the gut brittle, although a few months ago he assured us that this method was the "*ne plus ultra*." No brittleness has ever occurred with me, nor will it, I think, with anybody who uses *fresh* formalin, and is scrupulously exact as regards technique. With regard to the sulphuro-chromic method, advised by Dr. MacLaurin as reliable, MacPherson and Lockwood have both grown germs from gut so prepared; further comment is therefore unnecessary upon this point.

I cannot understand the extraordinary inconsistency of surgeons who use catgut, the most difficult of all substances to sterilise, and trust to antiseptics to free it from germs, and yet insist on instruments, the easiest things to sterilise, being disinfected by heat.

Without doubt the best published method is Krönig's cumol method, but it is not a process to be trusted to ignorant persons; they are liable not only to spoil the catgut, but also to burn down the building in which their experiments are conducted. I have been engaged in a number of experiments in this direction, and hope shortly to publish a method which will be, bacteriologically, as perfect as Krönig's, and much safer and easier of performance. I may say that every ligature used in the Berrima District Hospital is subjected to a temperature of over 170° (centigrade) for over an hour, which, as far as our present knowledge goes, ensures absolute sterilisation. I have even heated the gut to over 200° C. without impairing its tensile strength in the least. Chemical sterilisation is of the past, heat sterilisation is of the present *and future*.

Yours truly,

ARTHUR T. VALLACK, M.B., Ch.M.

Bowral, N.S.W.

Digitized by Google

REVIEW OF CURRENT MEDICAL LITERATURE.

OBSTETRICS AND GYNÆCOLOGY.

Is Bossi's Method a Real Advance in Obstetric Surgery.

Dührssen (*Archiv. für Gynäk.*, 1903, Bd. 68, Ht. 2). The author answers the above question at some length and in a decidedly negative sense. He considers that Bossi's dilator affords neither a safe, satisfactory, nor certain method of dilating the cervix. In most cases rapidity is not specially desirable. When it is essential multiple incisions of the cervix afford a much better method of emptying the uterus. The writer, in fact, maintains that this proceeding, so strongly advised by himself, remains infinitely preferable to the newer one advocated by Bossi.

The Condition of the Pelvis in Women on whom Symphysiotomy has been Performed.

Bulletin de la Société D'Obst. de Paris, February 19th, 1903. Tissier read notes of the after-histories of 20 women who had been delivered by symphysiotomy during the period 1898-1903 (February 3rd). These cases were operated on at seven different hospitals. Only four out of the 20 escaped without some undesirable sequela, the remaining 16 being all more or less damaged by the operation. One patient is a chronic invalid (five years). Eight have suffered from phlebitis. Ten have had urinary troubles during months or years, incontinence of urine being the most common urinary affection. As a rule it improves with time, but reappears on exertion or with a coughing effort. A number of women (number not stated) have difficulty in efforts of lifting or in going upstairs.

A Case of Double Pregnancy in a Double Uterus.

Journal of Obst. and Gyn. of the Brit. Empire, May, 1903. Hellier, J.B., reports the following case:—A healthy woman, aged 34, had had three previous normal labours, the last one three years ago. There was no reason to suspect any abnormality of the genital organs. She ceased to menstruate in May, 1902. During pregnancy the uterus was unusually large, and she complained of abdominal pain and swollen feet. Labour began January 28th, in the forenoon, and a living female child was born at 5.30 p.m., the head presenting. The placenta followed. On abdominal palpation the presence of a second child was recognised, but the uterus showed little tendency to expel it. At 11 p.m. chloroform was administered by Mr. Beetham, whose case it was, and his hand introduced into the womb, which was found empty. At 12 p.m. she was again examined under chloroform, when it was found that a second os uteri lay above and in front of and somewhat to the left of the other, the uterus being rotated on its long axis: a fœtal head was just within touch. It was found possible to place the finger in the left os and the thumb in the right os, and to grasp the septum between. This seemed fleshy and thick at this time.

By podalic version a living male child was delivered from the left side of the uterus; the placenta soon followed. The double fundus of the uterus was now easily palpated. There was no post-partum hæmorrhage, and the patient made an excellent recovery. The female fœtus weighed 6½ lb., the male 7 lb. There was nothing to suggest that the two pregnancies were not of the same date.

There was no trace of a vaginal septum. The septum between the two halves of the uterus was complete, and at the time of the labour the two ora uteri appeared to open separately into the vagina.

A month later the patient was examined again. Involution was well advanced. Instead of a double portio-vaginalis cervicis, or, at any rate, a well marked double os uteri, the vaginal condition was found to be normal, the septum uteri being retracted within the os and commencing just within it. The condition present could easily have escaped notice on a simple digital examination. The bifid fundus was obvious.

The facts of the case seem to be as follows:—The uterus is bi-cornuate, and has a complete septum reaching to the lowest part of the cervix. After three pregnancies in one side or other of the uterus, the two sides became pregnant simultaneously. When labour came on, the head on the right descended and dilated the cervix, and in so doing prevented the descent of the other head. The fact that the left cervical canal lay anterior to the right is a phenomenon which has been noticed before. (*Trans. Obst. Soc. Lond.*, vol. iv., 1862, p. 138.) The fact that the left side of the uterus did not at once expel the child after the other was born is also in accordance with other cases. (*Lancet*, August 5th, 1871.)

A Ruptured Extra-Uterine Pregnancy Complicating a Twin Intra-Uterine Gestation.

Dr. Balfour Marshall (Glasgow), *Journ. of Obst. and Gyn. of the B. Empire*, May, 1903, reported this case. On admission to the hospital an enema had been given by way of preparation for operation. Acute symptoms set in immediately, and the condition became very alarming before the operation—undertaken hastily—could be carried out. At the operation the abdomen was found filled with fluid blood, and bleeding was going on at the time. The sac was very adherent to the meso-sigmoid, and this fact was considered to have accounted for the accession of hæmorrhage after the administration of the enema. A primary rupture had taken place earlier, and had coincided with a previous attack of pain, faintness, etc. After the removal of the tube and the sac the oozing from the uterus could not be controlled, even by ligature of both ovarian and uterine arteries; so the uterus was rapidly removed, and the pelvis packed with iodoform gauze. The patient unfortunately succumbed the following day, and at the post-mortem nothing to account for death but the profound anæmia was noted.

Injurious Renal Mobility in Relation to Gynæcology.

Bonney (W. F. U.) (*Edinburgh Medical Journal*, December, 1902) summarises the results obtained by repeated examination of 100 consecutive patients at the Chelsea Hospital for Women, together with experimental observations in the *post-mortem* room. He lays great stress on the superiority of Glenard's "*palpation nephroleptique*" in examination of the kidney over other methods more commonly in use. This method consists in grasping the loin below the costal margin, with the hand in such a position that the thumb in front compresses the anterior parietes against the posterior, whilst the fingers of the same hand are placed over the twelfth rib behind. The author adopts Glenard's classification of mobility, viz., a first degree in which at the height of inspiration the thumb touches the lower pale of the organ; a second, in which the middle of the organ is gripped; and a third degree, in which the thumb can be got above the upper pole. In 100 cases, he found third degree mobility

Digitized by Google

present on the right side 40 times; and on the left, 11 times. He considers third degree mobility abnormal on either side, whilst [illegible] left side second degree mobility is also abnormal. His results show that neither child-bearing nor advancing age have any effect in increasing the mobility of the organ. The point, however, on which the author lays most stress is that *abnormal* mobility is not by any means always *injurious* to the patient, and in this connection he points out the important relation that truly injurious mobility bears to certain physical signs. These signs are, firstly, the absence of the expiratory return of the organ indicating its loss of connection with the diaphragm, and secondly, the inward rotation of the lower pole of the organ indicating its suspension by the renal pedicle. It is when these two signs are both present that injurious results may be certainly expected. He examined all his cases with special reference to these two signs, and, tabulating the results, finds a remarkable constancy of connection betweeu them and the present symptoms. He, therefore, divides abnormal mobility into three classes: (1) Simple exaggeration of diaphragmatic movement; (2) relaxed diaphragmatic attachments, causing absence of expiratory return, but as the kidney is still supported from below, and does not hang by its pedicle, there is no internal rotation; (3) relaxation of both upper and lower supports, as evidenced by the presence of both the before-mentioned physical signs. It is to this last class that the word *injurious* properly belongs. He suggests that the word *nephrospasis* should be used to describe this class of abnormal mobility. The author further points out how frequently the slighter degrees of injurious mobility are overlooked, and emphasises the fact that it is probably the commonest cause of backache in women, since lumbar pain is the earliest and only constant symptom of injurious mobility of the kidney. He considers that incomplete and inefficient examination of the kidneys is the cause of many diagnostic errors, and even useless operations on the pelvic organs, and reviews the differential diagnosis between the lumbar pain of injurious renal mobility and that due to pelvic disease and displacements. His results may be thus summarised:—(1) The distinction and detection of *injurious* renal mobility from that which, though abnormal, is unaccompanied by symptoms; (2) the frequency of injurious mobility; (3) the differential diagnosis between the symptoms due to injurious mobility and those due to pelvic disease and displacements. Injurious mobility occurred in 27 per cent. of his series, but the author is careful to point out that an undue proportion of such cases would present themselves at a gynæcological clinic.

The Source of the Liquor Amnii.

Silberstein (*Archiv. für Gynäk.*, 1902, Bd. lxvii., Heft. 3) brings forward what he regards as a new proof of the view that the fœtal kidneys secrete urine which is passed into the uterus, and forms the mass of the liquor amnii. Strassman, in 1899, investigated a case of uniovular twins, with poly-hydramnios in one amniotic cavity, oligo-hydramnios in the other. Hypertrophy and dilatation of the heart, enlargement of the kidneys, and hypertrophy of the bladder were found with poly-hydramnios, and faulty developments of these organs with oligo-hydramnios. The writer records a case of abortion at the fifth month of a twin pregnancy. The placenta had a double amnion, but a single chorion. Poly-hydramnios (6½ litres) was the condition in one sac, oligo-hydramnios in the other. The kidneys of the fœtuses were carefully examined, those of the first (poly-hydramnios) being hypertrophied. An exhaustive tabular statement showing the relations between the two fœtuses is given. The writer concludes that the quantity of the liquor amnii depends on the urinary activity of the fœtus.

Rapid Dilatation of the Cervix by Bossi's Dilator.

Lederer (*Archiv. für Gyn.*, 1902, Bd. lxvii., Heft. 3). The instrument used by this writer is 41 c.m. ong, and weighs 940 grammes. Its three blades are 2½ c.m. in length. A scale shows the width to which the blades are separated at any moment. Leopold reported 17 cases in which dilatation was secured on an average in 20 to 30 minutes.

Twelve were cases of eclampsia, all of which recovered. He employed a four-branched instrument. The present writer details ten new cases. The indications for dilatation were placenta prævia (1), inertia uteri and rigid os (2), phthisis (1), eclampsia (5), premature induction of latom completed (1). Four of the five cases of eclampsia recovered, the other died of pyæmia. The *autopy* revealed injuries to the cervix. As to the mortality in the ten cases, one mother died in hospital, and another was moribund when admitted. Only two children were born in good condition. Three were asphyxiated, and were restored, but soon died. Perforation was done in four cases. The writer thinks the cervix contracted as soon as artificial dilatation ceased, and advises carrying the process farther than appears necessary so as to avoid the risk of the complication. In these cases seven minutes was the shortest and 30 minutes the longest period occupied in dilatation. The average time was 20 to 25 minutes. Extensive injuries due to the instrument were not observed. Hæmatoma and torn perineum in one case are remarhed as caused by the forceps. The writer regards eclampsia as the special field of utility for Bossi's dilator. Its advantage over hydrostatic dilators are said to be (1) independence of any preliminary dilatation; (2) certain asepsis; (3) rapidity.

The Curette and Curettage in Gynæcological and Obstetrical Practice.

Briggs (*Liverpool Medico-Chirurgical Journal*, October, 1902) states that the main object of his paper is to disseminate doubts as to whether the modern interpretation placed upon the use of the curette in gynæcology and obstetrics is consistent with past experience and present knowledge. The position of the curette is experimental. Though adapted to the accomplishment of a free removal of endometrium, it is largely inefficient as a means of cure or relief. Cases are quoted to illustrate needless curettage from wrong interpretation of local symptoms, and the failure of curettage as a means of diagnosis and treatment in uterine hæmorrhage. Treatment by the curette of what is commonly understood as endometritis is apt to be incompletely effective, especially in the chronic cases in which a copious purulent discharge issues from the interior of the uterus. Menorrhagia and metrorrhagia, especially the former, are gauged with uncertainty as to their control by the local treatment, and as to their causation. It is possible that 75 per cent. of the endometrium in a supposed case of endometritis may be curetted away without the slightest alteration of the ménorrhagia or metrorrhagia. The relation of the endometrium to the bleeding from the fibroid uterus as cause and effect is not proved. Curettage, where practicable with efficiency, may be ineffective in its influence on the hæmorrhage.

In obstetrical practice the finger is to be preferred; the less the curette is used the better.

NEUROLOGY AND PSYCHIATRY.

The Path of the Taste Fibres.

Considerable diversity of opinion exists as to the course of the fibres conveying gustatory sensations to

Digitized by Google

the brain. While opinions are almost unanimous that the impulses from the anterior two-thirds of the tongue traverse the lingual nerve as far as its bifurcation, thence by the chorda tympani to enter the aqueduct of Fallopius, and thence along the facial to the geniculate ganglion, how the impulses reach the brain in their further progress is undetermined. Sir W. Gowers, basing his opinion upon examinations of cases of extirpation of the Gasserian ganglion by Horsley and Ballance, comes to the conclusion that the transmission of taste impulses takes place by way of the fifth nerve, not only those coming from the anterior two-thirds by way of the chorda tympani, but those arising from the posterior portion by way of the glossopharyngeal nerve. P. Stewart also states in a recent article in "Allchin's System of Medicine" that "it is highly probable that all the taste fibres enter the brain through the Gasserian ganglion, for when the fifth nerve is divided by operation in man above the Gasserian ganglion, although the glossopharyngeal nerve remains untouched, there is total loss of taste on the whole of the affected side of the tongue." Harvey Cushing (*Johns Hopkins Hospital Bulletin*, March, 1903), in an exhaustive article, reviews all the recent work on the subject, and gives the results of a careful examination of 13 cases of extirpation of the Gasserian ganglion, both before and after operation, with a view to deciding the path of gustatory impulses. He took great precautions in the examination of the patients so as to eliminate all sources of fallacy, and has arrived at remarkably uniform results. Tests were made upon these patients for the four primary forms of taste sensations—sweet, sour, bitter, saline—not only on all regions of the tongue, but also on the palate. In none of these cases was there a permanent loss of taste; at the most there was a transient loss lasting from two to three weeks, but ultimately the sense was completely recovered. The object of Cushing's paper is to negative the view that taste impulses travel to the brain along the fifth nerve rather than to advocate any other course for these impulses. He says that the generally accepted statement that an intracranial lesion of the facial nerve is unaccompanied by loss of taste seems to be wanting in confirmation. The portio intermedia is of considerable size and sufficiently distinct from the portio mollis to escape injury even though an intracranial lesion may clinically have produced complete facial paralysis. Embryological studies, furthermore, have established beyond question that the facial is a mixed nerve whose sensory afferent portion is represented by the nervus intermedius, and His has shown that the chorda tympani and the great superficial petrosal are portions of the seventh nerve. Cushing concludes:— 1. That the perception of taste is unaffected on the posterior portion of the tongue, and never permanently or completely lost on its anterior two-thirds after removal of the Gasserian ganglion. 2. That a temporary abolition or lessening of the acuity of taste may be found to exist over the anterior and anæsthetic portion of the tongue for some days after the operation. 3. That this temporary loss of function may possibly be occasioned by some interference with chorda transmission brought about by a mechanical or toxic disturbance due to degeneration of the lingual nerve. 4. That a lesion of the trigeminal nerve may be associated with disturbance of taste over the chorda territory without the necessary inference that the nerve is a path for gustatory impulses. 5. That the fifth nerve in all probability does not convey taste fibres to the brain either from the anterior or posterior portion of the tongue.

The Pathology and Bacteriology of Landry's Paralysis.

It is a matter of uncertainty what cases should exactly come under the designation of Landry's Paralysis, but it is generally admitted that this particular form of disease affecting the nervous system is really toxic in character. Farquhar Buzzard (*Brain, Spring Number*, 1903) in the first part of his paper records the results of previous investigations on the bacteriology of this disease, and shows that hitherto bacteriology had failed to throw much light upon it. In this part of his paper he comes to the following conclusions:—1. Even by modern histological methods a few cases of Landry's paralysis present no demonstrable lesions. 2. In the large majority of cases the lesions are such as can be produced in the central and peripheral nervous systems by the action of microbic toxins apart from the microbes themselves. In these cases it is the rule to find that bacteriological investigations have given negative results. 3. In a few cases the lesions are those of a disseminated or diffuse myelitis or meningo-myelitis of varying degrees of intensity, and in some of these pathogenic organisms have been demonstrated in the meninges, spinal cord and cerebro-spinal fluid, and occasionally in the blood and other organs as well. He next describes fully a case of this disease which died after 18 days' illness in the National Hospital under Sir W. Gowers. Histological examination of the central nervous system showed a condition of engorgement of the vessels of the meninges and spinal cord, with a few scattered hæmorrhages, slight changes in the myelin sheaths and axis cylinders in the cord and nerve roots, a certain degree of chromatolysis and excentration of the nuclei in the ganglion cells in the cord, and slight changes in the peripheral nerves. These morbid changes were very slight in degree of intensity, rather widely distributed, and toxic in character. A careful bacteriological examination of the tissues and fluids of this case was made. No organisms were found in the cerebro-spinal fluid, nor in the central or peripheral nervous system, but in the short vascular tissue which lies outside the spinal dura a micrococcus was found in large numbers. This organism appeared to be the same as that isolated from the heart's blood of the patient. It was seen in pairs or groups of four, each half of the diplococcus being hemispherical in shape and presenting a flattened surface to its fellow. In the primary cultures it stained well with the aniline dies, but did not retain Gram's stain; in later subcultures it retained the colour when treated by Gram's stain. Buzzard suggests the name "micrococcus thecalis" as a means of identifying it in the meantime. This micrococcus when injected into a rabbit produced at the end of seven or eight days an ascending flaccid palsy, and post mortem the same organism was recovered from the spinal dura mater. The coccus was grown in pure culture from the rabbit's blood, and the histological changes in the spinal cord were similar to those found in the patient.

OPHTHALMOLOGY.

Sympathetic Ophthalmia as a Metastasis.

P. Romer, Wurzburg *(von Graefe's Archives für Ophthalmologie)*, revives Berlin's original theory, and assumes that the infection of the sympathising eye is due to some micro-organism which must be specific to the eye but indifferent to the organism as a whole. After a free criticism of the various theories as to the production of sympathetic ophthalmia, he discusses the different paths by which the infection travels to the other eye, and concludes from clinical and scientific evidence that only one of two paths is at all probable, viz., either the optic nerves and its sheaths, or the blood stream. Against the former route are, firstly, the total absence of meningitic symptoms, as it is hardly conceivable that an organism capable of producing such serious inflammation of the eye could pass through the

Digitized by Google

base of the brain viâ the nerve sheath without causing an infection of the meninges (but he has assumed that the organism is specific to the eye only—Penscopist); and secondly, the fact that sympathetic inflammation often shows itself first in the iris and ciliary body of the sympathising eye, while the back of the eye appears to be unaffected. Romer criticises especially Deutschman's theory, and considers it as altogether inconclusive as regards the pathogenesis of sympathetic ophthalmia in man. In this opinion Romer is by no means alone. According to Romer's view the disease is a metastatic infection through the blood stream. Clinical facts, he maintains, are in accord with this theory, which is also consistent with the results of bacteriological work in other fields. Romer's experimental work on the subject is not yet published.

Colour Test.

An editorial in the *Edinburgh Medical Journal* for April refers to the recent unsettling of the general belief in the efficacy of Holmgren's test for colour blindness. "Oftentimes the forbidden things of to-day are the desiderata of to-morrow. From recent indications it is not unlikely that such a *volte face* may be made in the matter of testing of colour vision for railway and marine service purposes." Until lately it was dogmatically held that no test based in the naming of colours by the examinee was of any use. Now we are told that unless the candidate names the colours there is no security that he has normal colour vision. (Dr. Eldridge Green, who for many years past has made the study of testing for colour-blindness particularly his own, and has been constantly hammering away in the medical press on the subject, has shown conclusively—if, indeed, there be any such thing as conclusiveness in matters medical or surgical—that by Holmgren's test men are being continually rejected who have normal colour vision; and, on the other hand, colour-blind men are passed. He states that six varieties of colour-blindness might escape detection by Holmgren's test. He uses a lantern with coloured glass slides which can be "fogged" in different degrees by placing before them ground glass or other neutral tinted slides.—*Periscopist.*) As the writer in the Edinburgh *Medical Journal* states, candidates will be much pleased if the naming system takes the place of the Holmgren, against which they have always strongly complained. It will probably be found advisable in the end to make use of both systems, for though a colour-blind person may pass under Holmgren's method, it is also none the less certainly true that he may elude detection when the naming plan alone is employed.

Some Points in the Operation for Cicatricial Ectropium.

In *Knapp's Archives* for May, Hotz describes and figures some modifications of the usual methods of procedure. He points out that though the immediate results in the ordinary method are often very beautiful, the ultimate effect is generally hideous, and the lid is often everted again after a short time. His points are—(1) the proper division and fixation of the skin flaps; (2) the selection of the most suitable material for covering the lids; and (3) the shortening of the overstretched lid border. The tendency of the shrinking skin flaps to evert the lid again is almost inevitable as long as the transplanted flap is attached to the non-resisting lid border on the one side and the non-yielding skin of the forehead or cheek on the other. To avoid this he makes use of two flaps instead of one—a small one, which he calls the lid flap, to cover the lid surface only, and a larger one to be spread over the remaining wound area; and by making provision for the contraction of the larger flap no effect in this direction is produced on the smaller. This point is gained if one edge of the lid flap is united to the edge of the tarsus and the other edge to the free margin of the lid. Contraction of this flap cannot turn the lid over because there is no fixed point outside the lid. The shrinking of the larger flap with its point of purchase outside the lid cannot cause eversion, because its pulling force is expended on the edge of the tarsus furthest from the lid margin. A good material for the lids is the cicatricial skin usually found in the immediate vicinity of extensive ectropium. Failing this, a Thiersch graft is the only suitable material. These grafts should be shaved very thin, just deep enough to get live epidermic cells, but not deep enough to get hair follicles, or there will be trouble with a growth of hairs. The reposition of the everted lower lid cannot be perfect and permanent unless the unstretched lid margin is reduced to its proper length. This he regards as an essential point. The shortening is done near the outer canthus.

Ophthalmoscopic Diagnosis of Hæmorrhage in the Sheath of the Optic Nerve.

The *Ophthalmic Record* of May last has a review by Ludley Hall of I. Gonin's paper in the "Annales d' Oculistique" for February, which is too lengthy to go fully into, but the author's conclusions may be given. They are—(1) The appearance in an eye that has recently become blind of a milky opacity in the papillo-macular region, with ischæmia more or less complete of the retinal arteries, does not admit in any fashion of the diagnosis of effusion in the optic nerve sheath. (Formerly the dictum of Magnus, Parras, Rollet, de Wecker, Kœnig and others was accepted as differentiating by this appearance if it came on within a few hours, hæmorrhage into the sheath from embolism of the artery, where the œdema was supposed to show later with emptiness of the arteries and narrowing of the veins.) (2) There no longer exist reasons for considering profuse hæmorrhage at the border of the disc or in the vitreous as indicative of an apoplexy of the sheath. (Anatomically and experimentally such a path of communication would appear to be an impossibility.) (3) A slight degree of papillary stasis is the only ophthalmoscopic finding that the facts warrant in considering a symptom of retrobulbar effusion. (4) The absence of all ophthalmoscopic appearances do not warrant the exclusion of the possibility of a hæmorrhage, even abundant, in the sheath of the optic nerve. (5) Unless a hæmatoma of the sheath is complicated with a grave lesion, such as fracture or cerebral hæmorrhage, it is still difficult to determine what visual disturbances may be caused by it.

The spontaneous effusion of blood into the sheath is so rare that the author has not been able to find a single authentic case, nor has he been able to find a vaginal hæmatoma, though he has examined many hundreds of enucleated eyes. Again, out of 24 cases of sudden blindness with ischæmia, in which an anatomical examination has been made, 20 showed embolism of the artery, thrombosis or endarteritis as a cause; in four, no cause was ascertainable; while in not one was hæmorrhage into the nerve or its sheath the cause.

Cremation in Scotland.—From the latest report of the Scottish Burial Reform and Cremation Society it appears that for the year ended September 30th last 25 cremations were carried out in Scotland, being an increase of 10 over the number for the preceding year. The total to date is 122. For a reduced charge of £6 6s a certificate is now issued in Scotland carrying the rights (*a*) to one cremation, either at Glasgow or at any of the crematoria in Great Britain; and (*b*) to a niche for deposit of the ashes in the Columbarium at Maryhill.

Digitized by Google

PUBLIC HEALTH.

New South Wales.

Health of the Metropolis.—The report of the Medical Officer of Health for the month of June, 1903, states that the deaths in the metropolis during June numbered 467, in which number the deaths of non-residents which took place in Sydney hospitals are not included. The figure given is seven below the monthly average of deaths for the year, and corresponds to an annual death rate for the metropolis of 11·10 per 1000 living. A feature in this mortality for the month has been the number of deaths from old age. These totalled 27, while the average monthly number during the first five months of the year was 16. Heart disease was also above the average with 43 deaths. Deaths from bronchitis are very much below the average number for June, only totalling 17 against a quinquennial average for June of 31. The other important causes of death show no remarkable features. Diarrhœal diseases accounted for 24, of which 21 were infantile; phthisis, 46; cancer, 27; prematurity, 17; developmental diseases, 32; pneumonia, 39; Bright's disease, 29. Of the notifiable infectious diseases, scarlet fever has continued to be very prevalent; 355 attacks were notified to me during the month, and five deaths occurred. There were 67 attacks of diphtheria and seven deaths. Typhoid fever has continued to be rather more prevalent than is usual in June. There were 64 notified attacks, as against a quinquennial average for June of 39 attacks. The deaths, however, were below the average, numbering only three, against an average of five in June during the five preceding years. One case of bubonic plague was notified during the month.

Bubonic Plague.—On June 22nd a case of plague occurred at Annandale. The patient was a lad residing in Annandale and employed in a business establishment in the city. The patient was removed to the Coast Hospital. He has progressed favourably. At a special meeting of the Board of Health on June 22nd it was reported that since the first infected rat was caught in Sussex-street at the commencement of the present outbreak 110 rats and mice infected with the plague had been caught. Over 50 of the rats came from stables at Waterloo. On June 24th the Premier decided to adopt the recommendation of the Board of Health that a capitation fee of 6d be paid for rats and mice, in order to induce a vigorous crusade against those vermin, and to thereby minimise the possibility of the plague spreading. This arrangement came into operation on June 29th. At the close of the day 523 rats and 309 mice were paid for. This number does not include the large number brought to the bacteriological laboratory by the staffs of men employed by the Board of Health and the City Council. Another case of plague was reported from Summer Hill early in the month. Plague-stricken rats were found a few doors from the establishment in Sussex-street where this patient worked some weeks ago, and rats were stated to be dying in some numbers at the next door premises quite recently. Eight carcasses of rats and a few mice, besides a number of living mice, were obtained in various parts of the building and forwarded to the laboratory of the Department of Public Health for examination. A rat obtained from a Sussex-street produce store, hitherto not infected, was found to have suffered from plague. This was the only plague rat caught in the city for a fortnight. During the fortnight ended on July 8th 485 rats and 475 mice have been caught in all parts of the city by the Council's rat-catching staff and forwarded to the Department of Public Health for examination. 296 rats and 1081 mice had been caught in the various stores since May 23rd last. No further cases of the disease in human beings had been reported to date.

Smallpox.—The health authorities have decided to take the strictest measures to prevent the introduction of smallpox into New South Wales. The Board of Health, the Department of Navigation, and owners and agents of vessels have been informed that all ships arriving at Sydney or Newcastle after having touched at any port in Tasmania would have to bring up for inspection. The officers of the department will personally inspect the passengers and crew, and if any doubt exists as to the health of any of those on board they will detain the vessel and ask for instructions. The stock of vaccine in the Public Health laboratory is sufficient for requirements, but a further supply has been ordered in case of emergency. The attention of the medical profession has been directed to the terms of section 31 of the Public Health Act, which enjoins upon every medical practitioner the duty of reporting to the Board of Health any case of smallpox or eruptive fever which might reasonably be supposed to be smallpox. It is pointed put that the same obligation rests upon every householder or occupier of premises, and it is hoped by the Board of Health that all doubtful cases will be referred to them for diagnosis. The Government has declared Tasmania an infected State, and every vessel arriving from that State is liable to quarantine under the provisions of the Quarantine Act.

South Australia.

Central Board of Health.—At the meeting of the Central Board of Health on June 17, a letter was received from the secretary of the Central Board of Health, Brisbane, referring to a circular despatch received from the Right Hon. the Secretary of State for the Colonies respecting the supply by the Jenner Institute of Preventive Medicine in London of Yersin's curative serum for bubonic plague and Haffkine's prophylactic fluid. The board had discussed the points referred to in the despatch, and had fixed the annual minimum supply for Queensland. It was assumed that a copy of the despatch had been received by the General Board at Adelaide, and the Queensland Board suggested the desirability of concerted action being taken in the matter by the States of Australia. The secretary was directed to reply that the despatch referred to had been considered by this board, and to state what had been done; also to say that this board approves of the principle of concerted action, and would be glad to be informed of any proposed scheme.

Smallpox.—The Chairman of the Central Board of Health (Dr. Ramsay Smith) stated that on the first intimation of smallpox in Tasmania the Central Board of Health gave instructions that the clearing of all vessels from that State should be on the same footing as if it had been declared infected with smallpox. Instructions have also been issued to the health officers that all vessels from Melbourne are to be subjected to the same rules of clearing as those from Tasmania.

Queensland.

Bubonic Plague.—Dr. Ham, the Public Health Commissioner, on receipt of a telegram from the Board of Health at Sydney announcing a case of plague, has declared Sydney an infected port.

Smallpox.—The Governor-in-Council has declared Tasmania to be a place infected with smallpox.

Digitized by Google

A proclamation has been issued providing that all ships arriving from or having touched at any port in that State, and having had actual communication with the shores, and all vessels or boats which receive any passengers or goods from such ships shall, on arrival at any port in Queensland, be detained in quarantine until granted pratique by the Health Officer.

Victoria.

Bubonic Plague.—The further occurrence of plague in Sydney is causing the Melbourne health authorities some uneasiness. Dr. Gresswell is of opinion that additional precautions should be taken to keep the plague out. Since the beginning of the year a quarter of a million rats have been destroyed about Melbourne wharves, and 1000 baits are being laid daily.

Tasmania.

Smallpox.—A sensation was caused at Launceston on June 22nd by the announcement that smallpox prevailed there and that two deaths had occurred. There have been several cases of scarlet fever in the hospital, some ending fatally, but some rumours gained ground consequent upon the death of Nurse Cash (formerly of Melbourne) at the General Hospital, and inquiries elicited the fact that she died from smallpox. How the disease reached Launceston has not yet been explained, but it appears to have been discovered at the end of May. On June 1st a doctor who had been attending a man for apparently German measles ordered him to the hospital, where he developed a rash resembling smallpox, and died two days later. Nurse Cash and another nurse who had been attending Duggan were afterwards found to be suffering from suspicious symptoms, and were isolated. The latter recovered completely, but Nurse Cash developed smallpox and died. A porter named Johnston at the institution was also attacked with similar symptoms, and the doctors declared his illness to be smallpox modified by vaccination. None of the patients have been out of the State for some time. One of the members of Miller's Empire Company, who travelled by the steamer "Gracchus," has been here for several weeks past, but he reported himself daily to the health officer, and no suspicious symptoms were discovered in him, and the statement made that he might have brought the infection is doubted. Since then a large number of cases of the disease have been reported, with some fatal results.

New Zealand.

Bubonic Plague.—A case of plague has occurred at Auckland, the patient being a newspaper runner. The source of infection is unknown.

Sydney Metropolitan Combined Sanitary Districts.

Abstract of Annual Report of the Medical Officer of Health, Dr. W. G. Armstrong, D.P.H. (Camb.), for the Year 1902.

Population.—The mean population of the metropolis for the year 1902, as estimated for the purposes of this report, was 492,414. This does not include the population of shipping in the harbour nor the patients in the great public hospitals.

Births.—The number of births registered during the year was 13,002, of which 6665 were males and 6337 females. The total number is 401 greater than in the preceding year, and 824 greater than the average annual number for the preceding five years. The birth-rate for the year was 26·44 per 1000 of the population, which is higher than that of 1901 and 1900, but less than in 1899, and every preceding year except 1898. Illegitimate births numbered 9·54 per cent. of the total births.

Deaths.—The deaths numbered 5675, equal to an annual death-rate of 11·5 per 1000 living. This is, with the exception of the year 1900, of which the death-rate was 11·4, the lowest ever reached in Sydney. The number of deaths is arrived at by deducting from the registered deaths all those deaths of non-residents which occurred in metropolitan hospitals, all those which occurred in the two hospitals for the insane situated within the metropolis, and all those which took place on board of shipping in the port. A few deaths of residents in the metropolis which occurred outside the district have been included.

Infectious Diseases.—*Scarlet Fever.*—One thousand two hundred and fifty-three attacks of illness from scarlet fever were notified in the metropolis during the year. The number is larger than that for any year since 1898; in fact, scarlet fever may be said to have assumed a mildly epidemic type during the second half of 1902. Mortality: Thirty-eight deaths occurred from scarlet fever, corresponding to a mortality of ·07 per 1000 of the population of the metropolis. This mortality is higher than that of any year since 1894. The case fatality equalled 3·03 per cent. of notified cases, which is a higher per centage than has been experienced since notifications became legal, the case fatality in previous years never having exceeded 1·8 per cent. Eight deaths were registered for malignant scarlatina.

Diphtheria.—The number of notified cases was 393, corresponding to an incidence rate on the estimated mean population of ·79 per 1000; 37 deaths were registered, corresponding to a death-rate of ·07 per 1000 of the population. With the exception of the rate in the year 1899 (·03), this is as low a death-rate from diphtheria as has been experienced in the metropolis for 25 years. The case fatality for both sexes and all ages was 9·41 per cent. of the number of cases notified. A localised outbreak of diphtheria occurred in Parramatta, an extra-metropolitan burgh with a population of 10,394, in the month of October, which was traced to the spread of infection by means of milk. 45 cases of diphtheria and 65 cases of "sore throat" occurred.

Typhoid Fever.—Typhoid fever appears to have been present in the metropolis during the year 1902 only in an endemic form. In no instance were there any circumstances surrounding the cases, or groups of cases, which suggested the conviction of infection by milk or any other kind of food. 610 persons were attacked by the disease in the metropolis. This is the smallest number of attacks in any year since notification became established by law, and 29 per cent. less than the average annual number notified during the four previous years of notification. Fifty-nine deaths occurred, corresponding to a death-rate of 0·12 per 1000 living in the metropolis. The rate is the lowest ever recorded in Sydney. The fatality for the year was 9·7 per cent. of notified cases, and was exactly equal to that of 1901. On comparing the incidence of typhoid fever during 1902 on dwellings of the whole metropolis classified according to the type of sanitary conveniences used, it appears that among houses provided with water-closets one attack occurred

Digitized by Google

in every 207 dwellings; among houses with pail-closets, one attack occurred in every 111 houses; and among houses with cesspits, one attack occurred in every 107 houses.

Bubonic Plague.—During the period between November 14th, 1901, and June 12th, 1902, 138 cases of bubonic plague occurred in the metropolis, of which 40 were fatal. Seven cases were notified among Chinese, of which six proved fatal. The fatality among the Chinese was, therefore, 85 per cent. of the cases which came to knowledge, while that among Europeans was 26 per cent.

Administrative Measures.—During the year 1901, before any premonitory signs of the coming epidemic had manifested themselves, the City Council had established a rat-catching staff, which was kept in constant employment. Their duties were to trap rats on private premises whenever and whencesoever information as to the presence in numbers of those animals reached the Town Hall. Rat-infested dwellings were considered, in view of the imminence of plague, to come within the definition of summary nuisances of the Public Health Act of 1896, as premises in a condition dangerous to health, and were dealt with accordingly in large numbers. On the actual outbreak of plague such measures were prosecuted with additional vigour. On 18th February, 1902, the City Council enacted by-laws requiring the floors of produce stores and other buildings to be made rat-proof, and notices to comply with the by-law were served upon the owners of all produce stores in the city. The Mayor and City Council also decided to undertake the cleansing and disinfection of plague-infected areas in the city. The objects of the cleansing being primarily the discovery, destruction and disinfection of the haunts of rats within buildings, ground floors and basements were the chief objective. The floors of cellars and yards, when not paved imperviously to rats, were dug up and saturated with acid corrosive sublimate solution (1 in 500). Rat runs were opened up and flooded with the same solution, and all rats found in them destroyed. Internal walls of buildings were sprayed with corrosive sublimate, or 2 per cent. solution of formic aldehyde; floors flooded with corrosive sublimate solution; and outer, and dirty or dilapidated inner walls, limewashed. Wherever floors showed any evidence of rat-infestations they were lifted, and the space beneath cleansed and disinfected with corrosive sublimate. Where makeshift or dilapidated outbuildings were found, they were demolished. The total number of blocks cleansed and disinfected in the city was 40, containing 8041 dwellings or business premises. As soon as operations in each block were completed, a house-to-house inspection of the block by the city staff of sanitary inspectors was performed, with the object of noting and recording defects in structure and drainage connections, in order that the intention of owners might be directed to such defects, and their remedy called for. In view of possible reintroduction of the disease, besides these general measures of sanitation, there are a number of precautionary measures having for their direct object the prevention of access of rats to buildings, which all municipal local authorities could enforce in their districts by means of by-laws under the Municipalities Act. By-laws embodying most of them are already in force in the city of Sydney and in some of the suburban boroughs. They include: The enforcement of rat-impervious floors in stables, produce stores, butchers' shops and other buildings especially liable to infestation by rats; the alteration of floors and skirtings where necessary in private dwellings in such manner as to prevent the harbouring of rats; the wiring over of all area gratings, or other openings into buildings at or near the level of the footways, with fine-meshed wire netting; the removal of the wooden risers from the seats of privies and water-closets, and the flooring of such places with concrete or other impervious floors.

TUBERCULOSIS.—584 deaths from all forms of tuberculosis occurred in the metropolitan district during the year; 460 of these deaths were due to phthisis, 50 to tubercular meningitis, and 74 to all other forms of tubercular disease, including tabes mesenterica, tubercular peritonitis, scrofula, and general and undefined tuberculosis. The death-rate from all forms was 1·18 per 1000 living, while that of phthisis alone was ·93 per 1000. The latter rate is, with the single exception of that for the year 1897, the lowest for phthisis ever recorded. Nevertheless, there has been no sustained improvement in the death-rate from phthisis since the year 1896, though the annual fluctuations have been considerable. Prior to 1896 there had been a long steady fall beginning as far back as 1885, and amounting to a diminution of nearly 50 per cent. in the average rates prevailing at and immediately previous to the earlier year.

Investigation into Deaths from Phthisis.—An effort has been made to investigate the circumstances surrounding all those deaths from phthisis which occurred in the metropolitan area during the second half of the year. The points covered by the investigation included the occupation of the deceased, the duration of the illness, and the locality in which deceased was living when his illness commenced, the occurrence of other cases of phthisis in the family, in the same employment, or in the same house. The sanitary conditions of the dwelling occupied by the deceased at the time of his death were also investigated. 169 cases, corresponding to 84·5 per cent. of the total number investigated, first became ill while living in Sydney, and 67 of this number were born in Sydney and had never resided elsewhere. In all cases the exact sanitary conditions of the dwellings in which deaths occurred were noted. In 26 of 101 cases, evidences of dampness in some portion of the dwelling were found. Ventilation was found to be good in 29 houses, fair in 43, poor in 26, and bad in three. No flagrant cases of overcrowding were found in the 101 houses. Drainage defects were found in 32 houses. In 14 houses the house-drains were without proper ventilation, and in six of these the drains were, in addition, not properly disconnected from the sewers.

Evidences of Possible Sources of Infection.—In 67 cases, or 38·5 per cent. of the cases investigated, it was stated that deaths from consumption had previously occurred among near relatives of the deceased. In eight cases only could positive information be obtained as to the previous existence of phthisis among the fellow employees of the deceased. The evidence so far collected points very emphatically to the great bulk of the consumption in Sydney being due to conditions and influences existing in Sydney, whether climatic or social.

MEAT POISONING.—Two rather extensive outbreaks of poisoning, following the consumption of meat purchased in a ready cooked condition, occurred in the metropolis during 1902.

INFANTILE MORTALITY.—The deaths of children under one year of age in the metropolis during 1902 numbered 1558, being 26 per cent. of the total deaths at all ages, and corresponding to an infantile mortality rate of 119 per 1000 births. The principal causes of infantile mortality during the year were: enteritis, 552 deaths; diarrhœa and dysentery, 71 deaths; prematurity, 215 deaths; developmental diseases, 336 deaths; bronchitis, 65 deaths; pneumonia, 75 deaths; and tubercular diseases, 39 deaths. Including under the head of diarrhœal diseases all deaths from enteritis, diarrhœa and dysentery, the total deaths under this head reach 40 per cent. of the whole number of deaths under one year of age.

Digitized by Google

DAIRIES.—A decided improvement in the condition of the dairies of the combined districts over that of 1901 was observed. This is due to the closure of a number of the inferior and badly kept dairies.

Infectious Diseases on Dairy Premises.—Five attacks of typhoid fever, two of scarlet fever, and one of diphtheria were notified during the year as having occurred in dairies, or on milkvendors' premises. In all these cases the sale of milk was stopped until the patient was removed and the premises had been disinfected to the satisfaction of a medical practitioner. A serious outbreak of diphtheria occurred in connection with a dairy in Parramatta, and in that instance no notification of the occurrence of diphtheria among the occupants of the dairy premises took place.

THE SPITTING NUISANCE.—The municipal by-law prohibiting expectoration on the footways of the streets has been enforced with vigour in the city. During the year 231 persons were proceeded against on summons by the police for infringing the by-law, and fines to the amount of £55 were inflicted upon them. The suburban municipalities of Balmain, North Sydney, Paddington, and Willoughby have now adopted similar regulations, but I am not aware of any legal proceedings having yet been taken in those boroughs against offenders. The condition of the city footways has been very much improved in consequence of the action which has been taken. The action of the ferry boat companies in displaying notices prohibiting the practice of spitting on board their boats has also had a considerable effect. It is to be hoped that the railway authorities will see their way to framing and enforcing regulations against promiscuous spitting both in the tramways and the railways at an early date.

GARBAGE DESTRUCTION FOR THE CITY.—But the most important advance which has been made in the treatment of city refuse is that connected with the establishment at Moore Park, near the site of the garbage tip, of an installation for the destruction of refuse by fire, which, commenced in 1901, was completed and began work on April 25th, 1902. The six cells of the destructor are arranged back to back in a double row, and form a substantial mass of brickwork, cuboid in shape. Between two pairs of the cells are placed two special tubular destructor boilers, working up to 120 lb. pressure, which supply steam for (1) working a "Sturtevant" blower to supply the forced draught for the cells; (2) driving an electric light plant for illuminating the installation by night; and (3) working a Washington Lyon steam disinfecting stove, which is installed in a building attached to the disinfector. An improved mortar mill, for grinding the clinker produced from the refuse destroyed, forms part of the installation, and can also be worked from the destructor boilers when required. Situated immediately above the cells is the tipping platform, approached by an inclined roadway. Refuse is tipped from the carts on to the platform, and discharged into hoppers with wrought-iron doors worked by hand levers. From the hoppers, the material passes by gravitation on to the drying hearths, and thence to the fire bars. A fine smoke stack, 150 feet in height, is attached to the destructor, and adjoining the destructor block has been erected a brick building containing a steam disinfecting installation, and a lethal chamber for the painless destruction of dogs.

NOTES ON THE SANITARY WORK OF THE YEAR.—264 reports, dealing with a variety of subjects, were forwarded from this office to the various local authorities of the combined districts during the year. The majority of them dealt with matters which have already been treated of in the body of this report. A large number were in reference to dwellings unfit for human habitation, and to special nuisances. Special nuisances reported on numbered 847. In the majority of instances these nuisances consisted of premises in such a condition as to be dangerous to health. 142 cases of notifiable infectious disease were specially investigated. 25 visits were paid to the night-soil depôts of various local authorities, and 75 visits to garbage depôts. In the majority of instances the depôts of both kinds were found to be in a satisfactory condition.

Australasian Trained Nurses' Association.

THE annual meeting of the Australasian Trained Nurses' Association was held in the rooms of the Royal Society, Sydney, on July 9th. Dr. C. P. B. Clubbe occupied the chair, and there was a large attendance of members.

The annual report from the council of the association was submitted, and showed that the past year had been one of satisfactory progress. During the year 130 nurses had applied for registration on the general register. Of these, 115 presented satisfactory credentials, and had been added to the register. Of 38 applications from candidates for the auxiliary midwifery branch, 34 had been satisfactory. The present membership was 621 general and 147 midwifery nurses. During the year six general hospitals and one midwifery hospital had been recognised as training schools for nurses. The number of hospitals now recognised was (exclusive of Victoria and New Zealand) 62. The council emphasised the previously expressed opinion that the attempt to train probationers in small hospitals was unfair both to the nurses and the public. The necessity for the establishment of a uniform central examination for candidates for registration became daily more pressing, and the council hoped shortly to bring forward a scheme for the members' approval. During the past year the association had sustained an irreparable loss in the death of Dr. Norton Manning, who since the inception of the association had worked untiringly for its welfare.

The hon. treasurer (Mr. J. O. Fairfax) submitted the statement of receipts and expenditure for the year, showing that there was a balance to the credit of the association of £439 10s 1d on the general account, and a credit balance of £150 15s 4d on account of the benevolent fund.

The adoption of the report was moved by the Chairman, who traversed the work done by the council of the association during the year. He expressed regret at the death of their president, the late Dr. Manning, who had proved an exceptionally able pilot to the association. The report referred to the training in country hospitals. The matter was a difficult one. There was on the one hand the fact that the small country hospital could not give adequate training, and on the other there was the difficulty of the expense in employing trained nurses. At the present it would be impossible to supply the demand.

The motion was seconded by Miss Davis, and carried.

The following recommendation from the council was adopted:—"That in the case of nurses trained and certified by the large metropolitan general hospitals who have attended a systematic course of lectures in midwifery, have attended at a recognised lying-in hospital for three months, and have personally conducted not less than 20 labours, such nurses, on passing a satisfactory examination, shall receive a certificate to that effect, and shall be eligible for registration in a special register, to be called the register for trained nurses, who also possess a certificate in obstetric nursing. That such certificate shall be issued by the general hospital to which the nurse belongs, and shall be countersigned by the obstetric examiners."

Digitized by Google

A new concessional clause was also agreed to as follows:—"In the case of any nurse who, prior to March 31, 1900, has been engaged for a period of three years in nursing in a hospital or hospitals recognised by or deemed worthy of recognition by the council of the Australasian Trained Nurses' Association, and who can produce satisfactory evidence to that effect, together with certificates of competency from three reputable medical practitioners, the council shall have power to consider the claims of such nurse to membership, and may, if they consider them adequate, admit her as a member, either after examination or not, as they see fit. Such decision must be ratified at the next succeeding council meeting, and members so admitted are to be entered in the register as admitted under rule 21A."

Dr. Clubbe was elected president, Dr. Thring vice-president, and Mr. J. O. Fairfax was re-elected treasurer. The ballot in connection with the election of the council was announced subsequently.

HOSPITAL INTELLIGENCE.

Melbourne Hospital.—The tender of Messrs. Swanson Brothers, £2490, for the erection of a new ward to replace the tents which have been doing duty as an infectious diseases ward at the Melbourne Hospital has been accepted by the committee. It has been decided to keep the tents open till the last possible moment, and to approach the Government and the Board of Public Health with a view of emphasising the necessity of providing temporary accommodation for sufferers while the new ward is being built.

Kogarah Cottage Hospital.—A new wing is being built to complete the St. George Cottage Hospital at Kogarah, N.S.W., and Sir John See recently laid the foundation-stone of the additions. He referred to the willingness of the Government to assist charitable institutions, and sketched the history of the hospital. In November, 1894, a hospital with six beds and two cots was opened. In 1896 the accommodation was increased to 12 beds. The present wing will increase the hospital to 20 beds, and provide an operating theatre and larger kitchens, laundries, and servants' rooms. The new additions when furnished will cost £1200.

St. Vincent's Hospital, Melbourne.—Last month the Fitzroy City Council, in apportioning its annual charitable vote, resolved to exclude St. Vincent's Hospital from participation. Some strong expressions of opinion were made on the decision at a meeting subsequently held. Subsequently at a meeting of the Council it was moved—"That the sum of £60 be appropriated for charitable purposes, and that the benevolent committee be requested to prepare a list allocating the same." It was, however, pointed out that St. Vincent's Hospital could not participate in the proposed new vote in the face of the following resolution on the Council's records:—"That in the future distribution of the charitable vote of this Council only those institutions shall be deemed eligible for participation that are vested in public trustees and managed by committees elected by the contributors." The motion was lost.

Coast Hospital, Sydney.—At the Coast Hospital, for the half-year ended June 30th, 1742 patients were admitted, being an increase of 501 over the corresponding period of 1902. During the month of June, 297 patients were admitted, of which 209 were general cases and 88 were suffering from infectious diseases. Altogether, 242 patients were discharged cured, 52 relieved, and 9 died. There remained in the hospital at the end of the month 307 patients, of whom 181 were general cases and 126 infectious. The average daily number resident for the month was 303.

The Queen's Home, Adelaide.—At the annual meeting of subscribers to the Queen's Home, held at Adelaide in May last, the report of the committee stated that the opening ceremony, which was performed on May 24, 1902, by Lady Tennyson, proved a great success, and was largely attended. To commemorate the great service rendered by Lady Tennyson, and to perpetuate her memory, the committee had erected a brass memorial plate in the main hall at the home. The buildings, furniture, and improvements had cost £4650 to date, and accommodation provided for 16 patients and four nurses. During the year 80 patients have been admitted, 25 of whom were free, and 80 infants were born. The endowment fund has been increased by a donation of £50 from Madam Melba, and a bequest of £125 from the late David Bower, and now stands at £1825. Donations amounted to £361 12s 5d. These were mostly given in connection with the opening ceremony. Subscriptions amounted to only £77 19s 3d. The committee thanked the Government for the grant of £150, and hoped that at least the same amount would be given annually.

Jubilee Sanatorium, Dalby, Queensland.—The following is an extract from the half-yearly Government report:—Remaining from 1902 on January 1st, 1903, 24; admitted since, 44: total under treatment, 68. Discharged, 42; died, 2; remaining July 1st, 1903, 24. Of the 44 cases, 7 were found to be non-tuberculous. The 37 tuberculous cases are tabulated as follows:—

	Cured.	Impr'v'd.	I.S.Q.	Deaths.	Tl.
Incipient	5	1	1	0	7
Pronounced incipient	3	1	1	0	5
Softening	1	5	0	1	7
Cavity	1	4	12	1	18
					37

In the cured cases with the arrest of the disease there was an average weight increase of 18 lb.; in the improved cases, with the amelioration of the symptoms, there was an average weight increase of 12 lb. Two patients (one incipient and one pronounced incipient) left before the arrest of the disease was completed, but promised to carry out the treatment at home. From information received they are doing well, but as no examination by a medical man has been made they are placed on the improved list given above.

Alfred Hospital, Melbourne.—The Alfred Hospital closed its financial year on 30th ult. with a debit balance of £600. This, notwithstanding that it commenced the year with a credit balance of £500 and received in special contributions a sum of £575 during the term. The cause of the deficiency was the increased number of patients accommodated, the average number per day being in 1902-1903 165, as against 138 in 1901-1902. The Mask and Domino Ball held in aid of the hospital proved a great financial success. The net profit will exceed £500, while indirectly the funds would benefit considerably.

PERSONAL ITEMS.

At a meeting of the Melbourne University Council on July 6th a letter was received from Professor C. J. Martin, D.Sc., F.R.S., announcing his appointment as

Digitized by Google

director of the Jenner Institute of Preventive Medicine in London, and resigning his position as Professor of Physiology in the Melbourne University.

Drs. Holmes and Blue have been appointed medical officers to the Warialda Hospital, N.S.W., in place of Dr. Mackinnon, who has left the district.

Dr. A. W. Esler, late of Heathcote, Victoria, has succeeded to Dr. W. J. S. McKay at Stanmore, Sydney.

The will of the late Dr. R. R. Steer Bowker, late of "Avoca," Darling Point, Sydney, who died on April 3rd, 1903, has been valued for purposes of probate at £18,260 2s 2d.

Dr. Robert B. Wade, of Stanmore, Sydney, was married to Miss Maud Furber, only daughter of Mr. Thomas Furber, F.R.A.S., L.S. (president of the Institute of Surveyors), at St. John's, Darlinghurst, on June 13th. Dr. G. Menzies, of Drummoyne, acted as best man.

Dr. Huxtable has decided to continue the superintendentship of the Charters Towers Hospital, Q.

A large number of the friends of Dr. Cahill, who left Wellington, N.Z., last month for a visit to Europe, presented him with a letter expressing their good wishes for a pleasant voyage. Dr. Cahill was also entertained by the members of the Wellington Club at a dinner.

Dr. Martin, of Wellington, N.Z., having recovered from an attack of pleurisy, left on the 16th inst. for a trip to Japan, via Sydney. During his absence his practice is being attended to by Dr. Herbert, Wellington.

Dr. F. R. Riley, of Dunedin, returned from England early in June, and has resumed practice. Dr. E. H. Williams, who was his *locum tenens*, has left for England.

Dr. E. J. O'Neill, a graduate of the Otago University, who has held an appointment for a term as surgeon in the Dunedin Hospital, and subsequently obtained a commission in the 6th N.Z. Regiment, has passed his examination for the qualification of F.R.C.S. (Edin.). Dr. O'Neill recently held the position of house surgeon to the Lock Hospital, Soho, London.

Dr. John E. Butchart, L.R.C.P. (Edin.), lately of Victoria, has taken over the practice and dwelling of Dr. Sanders, of Stratford, N.Z. Dr. Sanders has gone to Raglan to practise.

Dr. Arthur Hall, who has been studying at Home Universities, and who is now at Hobart on his way back to the colony, has been temporarily appointed senior house surgeon at the Dunedin Hospital. Dr. Hall formerly occupied the same position.

Brigade-Surgeon Lieutenant-Colonel Sydney Skerman, V.D., has been promoted to be Brigadier-Surgeon-General, in succession to the late Hon. Dr. Grace. The appointment dates from May 7th. Dr. Skerman is in practice at Marton, N.Z.

Dr. William Stephens, of Riverton, Southland (N.Z.), left by the "Sierra" on her last trip for 'Frisco. He intends to be away from his practice for about 12 months. Dr. C. H. Gordon, of Dunedin, is in charge of Dr. Stephens' practice while he is absent.

Dr. E. Matthews Owens has entered into partnership with Dr. F. J. Drake, of Hobart.

Dr. Lines, senior House Surgeon at the General Hospital, Hobart, has been granted six months' leave of absence. Dr. E. J. Roberts will take up Dr. Lines' duties.

Dr. J. S. C. Elkington, who acted as expert to the Board of Public Health during the last visitation of bubonic plague to Melbourne, and subsequently accepted an appointment as Inspector of Inoculation to the Indian Government, returned by the steamer "Euryalus," accompanied by Mrs. Elkington. After spending a brief holiday in Melbourne, Dr. and Mrs. Elkington intend to return to India.

A farewell banquet was tendered to Dr. P. F. Shanahan at the Royal Hotel, Hawker, South Australia, on his departure from the district.

At the committee meeting of the Hawker Institute a minute was inserted recording the committee's appreciation of Dr. Shanahan's services. Dr. P. F. Shanahan has left for Arltunga. Dr. Kilpatrick has taken his place at Hawker, S.A.

Dr. A. Grieves is leaving Wahroonga, N.S.W., and Dr. Clay, of Hornsby, succeeds to his practice there.

Dr. H. B. Wilson has been confined to his bed at Yarra Yarra homestead, near Germanton, N.S.W., suffering from a complication of complaints, and also two broken ribs resulting from an accident which happened whilst he was visiting a patient at Yarra. Dr. Keogh, of Melbourne, who was on his way to Germanton to act as *locum tenens* for Dr. Wilson, had one foot crushed whilst alighting from the train at Culcairn.

Dr. David Harbison, who returned from England a little less than a year ago, leaves Wallaroo, S.A., at the end of this month, and intends, after travelling in the other States for a few months, to establish himself in practice in Adelaide. Much regret is expressed in Wallaroo at his departure.

Dr. H. H. Formby, of Adelaide, has passed his examination for F.R.C.S. in London. Dr. Formby reached London in August last year, after serving some time with the Army Medical Corps in South Africa.

Dr. Chisholm Ross, lecturer on psychological medicine at Sydney University, and late medical superintendent

Digitized by Google

of Callan Park Hospital for Insane, has commenced practice at 147 Macquarie-street, having succeeded to the practice of the late Dr. F. Norton Manning.

MEDICAL NOTES.

Demonstration of Röntgen Ray Apparatus at Sydney Hospital.—An interesting exposition of the curative powers of the X-rays was given to the Board of Directors of the Sydney Hospital by Dr. Herschell Harris last month. The instrument used has only recently been imported from London, where it was selected by the Secretary of the Röntgen Ray Society. The treatment of a very severe case of rodent tumour was explained, a subject undergoing a prescribed ten minutes' sitting. In this case the patient three months ago first visited the institution. After regular treatment his general health had not only improved, but a cure of the ulcer had been practically brought about. Besides the X-rays, the system of utilising violet rays (a modification of the Finsen apparatus) was also explained, the means of applying them to the cure of lupus being demonstrated.

The man Campbell, whose case excited so much interest in connection with the great railway conspiracy, has quite recovered from the long period he spent in bed while supposedly shamming from partial paralysis. He has been removed to St Helena penal establishment (Q.), where he is undergoing hard labour.

The Adelaide Dental Board Cabinet accepted the resignation of the Dental Board, which was tendered in consequence of the decision given by his Honor Mr. Justice Boucaut in the William Fisk case. The board, however, decided before the resignation was accepted to place the name of Mr. Fisk on the dental register in accordance with the judgment. It is not likely that a new board will be immediately appointed.

James Brown Memorial Trust, Adelaide.—At the last monthly meeting of the trustees reports were received from the sub-committees of Estcourt House and Kalyra. The sub-committee of Kalyra reported 36 patients in the home. Dr. Gault considered the progress made by most had been satisfactory. Plans of the new wing were discussed and left with the sub-committee to finally approve. The hope was expressed that the home for incurable cases would soon be established elsewhere, thus enabling the cases to be separated. The sub-committee reported that all the children now at the Estcourt Home were getting on well, and looking much stronger for the treatment received.

Charitable Donations and Bequests. — Mr. Joseph Kronheimer, senior partner of the firm of Kronheimer & Co., Flinders-lane, Melbourne, has placed at the disposal of the Victorian Association for the Prevention and Cure of Consumption the sum of £5000 for the benefit of consumptive patients in an advanced stage of the disease.

Government Grants to Hospitals. — The Premier of New South Wales (Sir John See), speaking at the laying of the foundation-stone of the additional wing to the Kogarah Cottage Hospital, stated that the annual vote for hospital endowments was £50,000 last year, and special grants £8000. The Sydney Hospital had so far had from the State £141,000, and the Prince Alfred Hospital £122,000, irrespective of the two wings now being built, which would cost £66,000. Last year the various metropolitan hospitals treated 31,660 indoor patients.

The Rockefeller Medical Institute.—According to the cablegram in the *Sydney Morning Herald* of July 3rd the trustees of the Rush Medical College have raised a sum of £200,000, which they have presented to the Chicago University. That University thus becomes entitled to receive Mr. Rockefeller's gift of £1,200,000 towards the cost of the establishment in Chicago of a medical institution which will be the finest in the world.

MILITARY INTELLIGENCE.

NEW ZEALAND.

Hamilton Thomas, to be Surgeon-Captain New Zealand Volunteer Medical Staff.

Herbert, William Edward, M.D., F.R.C.S. (Edin.), to be Surgeon-Captain New Zealand Militia.

McCredie, Andrew, to be Surgeon-Captain New Zealand Volunteer Medical Staff.

Noonan, Patrick, to be Surgeon-Captain New Zealand Volunteer Medical Staff.

MEDICAL APPOINTMENTS.

NEW SOUTH WALES.

Holmes, H. G., M.B., M.Ch. (Syd.), to be Government Medical Officer and Vaccinator at Warialda, N.S.W., *vice* Dr. R. R. S. MacKinnon, resigned.

Mackellar, Hon. C. K., M.B., C.M., M.L.C., to be a Member of the Board of Health, *vice* Dr. F. Norton Manning, deceased.

Stoney, Robert Bindon, M.B., Ch.B., B.A.O. (Dubl.), to be Medical Officer for the Aboriginal Station at Cumeroogunga N.S.W., *vice* Dr. T. Orde Smith, resigned.

VICTORIA.

Sheahan, Dr. J. Gerald, to be Physician to Out-Patients, St. Vincent's Hospital, Melbourne.

WEST AUSTRALIA.

Connor, D., L.M.R.C.S., has resigned as District Medical Officer and Public Vaccinator, Victoria Plains, W.A.

Forshaw, William J., to be Resident Physician, Kalgoorlie Hospital, W.A., from June 3rd, 1903, *vice* James Thompson, resigned.

Thompson, James, M.B., B.S. (Melb.), to be Resident Medical Officer to the Perth Public Hospital, W.A., *vice* L. S. Allan, resigned.

SOUTH AUSTRALIA.

The following appointments have been made in connection with the Adelaide Hospital:—

Cavenagh-Mainwaring, W. R., M.B., Ch.B., to be Honorary Assistant Surgeon.

Poulton, B., M.D., and Giles, W. A., M.B., Ch.M., to be Honorary Surgeons.

Swift, H., M.D., and Hamilton, A. A., M.B., Ch.B., to be Honorary Assistant Physicians.

Symons, M. J., M.D., to be Honorary Ophthalmic Surgeon.

Verco, J. C., M.D., Hayward, W. T., L.K.Q.C.P., and Niesche, F. W., M.D., to be Honorary Physicians.

Watson, Professor A., M.D., F.R.C.S., to be Honorary Pathologist.

QUEENSLAND.

Campbell, Alfred, F.R.C.S. (Edin.), M.R.C.S. (Eng.), to be Assistant Medical Superintendent of the Hospital for the Insane at Toowoomba (Q.), *vice* A. Price, M.B., Ch.B. (Edin.), resigned.

Shaw, Dr. Helen, to be Resident Medical Officer of the Lady Bowen Hospital, Brisbane.

NEW ZEALAND.

Symes, William Henry, M.B., M.S., to be Public Vaccinator at Christchurch.

McAra, William, M.B., etc., to be Public Vaccinator at Gore.

TASMANIA.

Bernard, Thomas, M.B., M.S., to be Public Vaccinator for the district of Port Cygnet.

Deane, C. M., M.D., to be Public Vaccinator for the district of Strahan.

Kidd, R., L.M.R.C.P., to be Public Vaccinator for the district of Evandale.

Digitized by Google

McCall, Hon. John, M.B., C.M., to be President of the Central Board of Health in succession to the Hon. George Thomas Collins, resigned.
Penny, H. J., L.K.Q.C.P. (Irel.), to be Public Vaccinator for the district of Portland.
Read, George Frederick, L.R.C.P., L.R.C.S., L.F.P.S., L.M., to be appointed a Commissioner of Fisheries.
See, Dr. H. von, to be Public Vaccinator for the district of Derby.
Scott, Robert Gillespie, M.B., C.M., to be Honorary Medical Officer to the Hobart Hospital, *vice* the Hon. Gamaliel H. Butler, M.R.C.S., L.R.C.P., resigned.
Wilkinson, Dr. A. N., to be Public Vaccinator for the district of Evandale.

PROCEEDINGS OF AUSTRALASIAN MEDICAL BOARDS.

NEW SOUTH WALES.

Blaney, Henry Patrick, M.B. (Univ. Syd.), 1903.
Bourne, Eleanor Elizabeth, M.B., Ch.M. (Univ. Syd.), 1903.
Costelloe, John, M.B. (Univ. Melb.), 1900; Ch.M. (Univ. Melb.), 1901.
Elworthy, William Henry, M.B., Ch.M. (Univ. Syd.), 1903.
Fitzpatrick, Edward Bede Lucien, M.B. (Univ. Syd.), 1903.
Flashman, Charles Ernest, M.B. (Univ. Syd.), 1903.
Grey, William Charles, M.B., Ch.M. (Univ. Syd.), 1903.
Hart, Alexander Watson, L.R.C.P. & S. (Edin.), L.F.P. & S. (Glasg.), 1902.
Kennedy, John, M.D., M.S. (Queen's Univ. Irel.), 1881.
Langton, William Digan, M.B., Ch.M. (Univ. Syd.), 1903.
Latham, Oliver, M.B. (Univ. Syd.), 1903.
Mattei, Charles, L.R.C.P. & S. (Edin.), 1888.
Osborne, John King, M.B., Ch.M. (Univ. Syd.), 1903.
Sadler, Henry Frank, M.B. (Univ. Syd.), 1903.
Walton, John Francis, M.B. (Univ. Syd.), 1903.
Watson, James Frederic, M.B., Ch.M. (Univ. Syd.), 1903.

For Additional Registration.

Blackburn, Charles Bickerton, M.D., 1903; Ch.M., 1899 (Univ. Syd.).
Rees, Walter Llewellyn, M.Ch. (Univ. Syd.), 1902.

For Registration under Clause 3, Act No. 70, 1900.

Mooney, Edmund Charles.

QUEENSLAND.

Ramsden, Henry Kay, Chillagoe, M.B., B.S. (Vict. Univ.), 1891.

SOUTH AUSTRALIA.

Hart, Alexander Watson, L.R.C.P. & S. (Edin.), L.F.P. & S. (Glasg.), 1902.
Mattei, Charles, L.R.C.P. & S. (Edin.), 1888.

BIRTHS, MARRIAGES AND DEATHS.

BIRTHS.

CHERRY.—On June 6th, at Glen Iris, Melb., the wife of Dr Cherry—a son.
COOLEY.—On June 23rd, 1903, at "Oakburn," Redfern, Sydney, the wife of P. G. Cooley, M.B.—a daughter.
GRIFFITHS.—On July 7th, at Gundagai, N.S.W., the wife of Dr. F. G. Griffiths—a daughter.
HEGGATON.—On June 22nd, at Murrumburrah, N.S.W., the wife of Rupert D. Heggaton, M.B.—a son.
LEMON.—On May 30th, at "Toolangi," Glenferrie-road, Hawthorn, Victoria, the wife of Ferguson Lemon, M.B., B.S.—a daughter.
LITCHFIELD.—On June 11th, at 118 Glebe-road, Sydney, the wife of Dr. W. F. Litchfield—a son.
LUDOWICI.—At Rydalmere, N.S.W., on June 8th, the wife of Edward Ludowici, M.B., Ch.M.—a son.
WOODS.—On June 11th, at Albury, N.S.W., the wife of W. Cleaver Woods, M.D.—a son.

MARRIAGES.

SIMMONS—FORBES.—On April 21st, at St. Andrew's Church, Drumsheugh Gardens, Edinburgh, by the Rev. James Davidson, M.A., B.D., North Berwick, and Rev. J. M. Sloan, M.A., Edinburgh, Sewell, third son of the late B. Simmons M.D., M.R.C.S., of Cheltenham, to Maie Eleanor, youngest surviving daughter of J. A. Forbes, Elphinstone, North Berwick.
FOX—THOMAS.—On June 18th, 1903, by the Ven. Archdeacon Langley, at the Sydney Medical Mission, Robert Algernon Fox, M.B., youngest son of the late Thomas Fox, of Wellington, Somerset, England, to Julia Carlile Thomas, M.B., eldest daughter of the late Sidney S. Thomas, of Hunter's Hill, Sydney, N.S.W.
PATTERSON—HAINES.—On May 21st, at "Melrosa," Traralgon, Victoria, by the Rev. R. Elliott, A.K.C., J. H. Patterson, M.B., of Tallangatta, to Emily Grace Haines, younger daughter of Emily and the late W. B. Haines, formerly of New South Wales and Geelong.
HULL—HARDY.—At St. John's Episcopal Church, Edinburgh, N.B., on June 9th, by the Rev. Charles M. Black, M.A., of Christ Church, Morningside, Walter Hull, M.D. (Lond.), of Cootamundra, N.S.W., to Gertrude Madeline, younger daughter of the late James Hardy, R.I., of London.

DEATHS.

BAIN.—On June 25th, at Adelaide, John William Devereux Bain, M.R.C.S., aged 65 years.
CROOKS.—On June 10th, at Bundaberg, Queensland, Dr. A. W. Crooks, L.R.C.P. & S. (Edin.), late of Mossgiel, N.S.W.
GOVETT.—On July 4th, at his residence, 68 Norton-street, Leichhardt, Sydney, Edward Govett, M.D., aged 78 years.
LANE.—On May 18th, at his residence, Beverley, near Stanthorpe, Queensland, Dr. J. P. Lane, aged 88 years.
MANNING.—On June 18th, at "Cromer," Phillip-street, Sydney, Frederic Norton Manning, M.D., aged 64 years.

BOOKS RECEIVED.

Muco-Membranous Colitis. By Dr. Troussard. London: Baillière, Tindall & Cox. Sydney: L. Bruck. 1903. Price, 1s.
Tropical Diseases: a Manual of the Diseases of Warm Climates. By P. Manson, M.D. London: Cassell & Co. Sydney: Angus & Robertson. Price, post free, 12s 8d.
Manual of Practical Anatomy. By D. J. Cunningham, M.D., D.Sc., F.R.S.; Vol. 1st—Upper Limb, Lower Limb, Abdomen. 1903. Third edition. Edinburgh: Young J. Pentland. Sydney: Angus & Robertson. Post free, 13s 2d.
The Pocket Therapist: a Dictionary of Disease and its Treatment; being a Concise Manual of Modern Treatment and an Aid to Memory for Students and Practitioners. By T. S. Dowse, M.D., F.R.C.P. Third edition. Bristol: J. Wright and Co. 1903. Price, 8s 6d net.
Public Health Laboratory Work. By Hy. R. Kenwood, M.B., D.P.H., F.C.S. Part VII., Dealing with Public Health Bacteriological Work, contributed by W. G. Savage, M.D., B.Sc., D.P.H. Third edition. With illustrations. London, 136 Gower-street: H. K. Lewis. 1903. Price, 10s 6d.
Observations on the Sensibility of the Abdominal Cavity. By K. G. Lennander, F.R.C.S. (Eng.), Professor of Surgery in Upsala, Sweden. Translated by A. E. Barker, F.R.C.S., Professor of Surgery at University College, London. London: J. Bale, Sons & Danielson, Ltd. 1903. Price, 3s net.
Protozoa and Disease. By J. Jackson Clarke, M.B. (Lond.). Part I. London: Baillière, Tindall & Cox. Sydney: L. Bruck. 1903.
Catechism Series. Pathology; Parts II. and III. Edinburgh: E. and G. Livingstone. Price, 1s each.
Manual of Medicine. By Thomas Kirkpatrick Monro, M.D., Glasg. London: Baillière, Tindall & Cox. Sydney: L. Bruck.

HUDSON'S "EUMENTHOL" JUJUBES (Registered) are a Gum Jujube containing the active constituents of well-known Antiseptics, Eucalyptol, Thymus Vulg., Pinus Sylvestris, Mentha Arv., with Benzo-Borate of Sodium, etc., and exhibit the antiseptic properties in a fragrant and efficient form. Sold by all chemists; tins, 1s 6d. Are Antiseptic, Prophylactic, reduce Sensibility of Mucous Membrane. Mr. W. A. Dixon, F.I.C., F.C.S., Public Analyst of Sydney, after making exhaustive tests, says:—"There is no doubt but that 'Eumenthol' Jujubes have a wonderful effect in the destruction of bacteria and preventing their growth. . . . I have made a comparative test of 'Eumenthol' Essence and Creosote, and find that there is little difference in their bactericidal action."

Digitized by Google

AUSTRALASIAN MEDICAL GAZETTE.

MECHANISM OF THE PAROXYSMAL NEUROSES.

By Francis Hare, M.D., Consulting Physician Brisbane General Hospital, Inspector of Hospitals, Queensland.

ASTHMA.

ALTHOUGH most modern writers held to the theory "that the phenomena of asthma[1]—the distressing sensation and the demand for extraordinary respiratory efforts—immediately depend upon a spastic contraction of the fibre-cells of organic muscle, which minute anatomy has demonstrated to exist in the bronchial tubes," a theory which Salter regards as so well established as to render its further defence almost superfluous, yet not a few still prefer the hypothesis[2] "that the mucous membrane of the tubes becomes very rapidly swollen by what German writers term a 'fluxionary hyperæmia,' or, as Weber put it, by a 'dilatation of its blood-vessels through the influence of the vaso-motor nerves.'"

This is essentially the hypothesis of Sir Andrew Clark, who regarded asthma as an internal urticaria; it is the hypothesis of Osler, who regards asthma as[3] "a neurotic affection characterised by hyperæmia and turgescence of the mucosa of the smaller bronchial tubes"; and it is the hypothesis which we, on many grounds, shall find ourselves almost inevitably compelled to select. Under it the vaso-dilation is, as in migraine, the compensation for vaso-constriction elsewhere; or it may be, as there are reasons to believe of some cases, that the vaso-dilation is primary and the vaso-constriction secondary and compensatory. In either case, these opposite vascular conditions are coexistent and correlative, and the dyspnœa of asthma becomes the true analogue of the headache of migraine.

Vaso-constriction.—The widespread area of vaso-constriction is found to occupy practically the same regions in asthma as in migraine. The pallor, anæmia, and sense of coldness, subjective and objective of the surface, especially of the extremities, during severe asthmatic paroxysms have been noted by most observers. Salter says[4]: "The pulse during severe asthma is always small, and small in proportion to the intensity of the dyspnœa; it is so feeble sometimes that it can hardly be felt. . . . I have never known the small pulse absent in severe asthma." William Russell, referring to the case of a man 53, the subject of spasmodic asthma, says[5]: "It was quite clear that when the asthmatic spasm supervened, his radial arteries became markedly tightened up. During the paroxysm the arteriometer measurement of the radial was 2·2 mm.; after the paroxysm was relieved by liquor trinitrina, the diameter of the artery rose to 2·4 mm." That the constriction of the radial is intimately bound up with the paroxysm is shown by the fact that[6] "immediately the paroxysm yields, the pulse resumes its normal volume."

Many of the premonitory or initial symptoms of the asthmatic attack seem to depend upon the vaso-constriction. By it we may explain the polyuria occurring sometimes, according to Salter,[7] so early in the attack that the patient is awakened from his sleep by the distension of his bladder, when the difficulty of breathing is but just commencing: the premonitory drowsiness—common also in migraine—may be due to cerebral anæmia from vaso-constriction; and the[8] "paræsthesiæ of various kinds, which Romberg happily called an asthmatic aura," to a localized vaso-constriction in the cerebral centre or at the periphery.

Cardiac inhibition.—Many writers refer to the fact that the pulse is slowed during a fit of asthma. Liveing quotes Sir John Floyer to this effect; [9] he also mentions a case in which the pulse-rate fell to 20. Salter, however, does not allude to retardation, and therefore we may reasonably infer that slowing of the pulse is at least an inconstant phenomenon. Its absence precludes cardiac compensation for the widespread vaso-constriction we know to exist; we are led, therefore, to search for some compensating area of vaso-dilation; and our attention is obviously directed to the bronchial mucosa.

Vaso-dilation.—That vaso-dilation occurs in the bronchial area is probable from many observations and on many grounds. "Storck actually observed with the laryngeal mirror that in certain instances of asthma the whole length of the trachea and part of the right bronchus were deeply congested."[10] In hay-fever there is "obvious swelling of the mucous membrane of the nose"[11]; and hay-fever and hay-asthma graduate imperceptibly into each other. The association of asthma with urticaria, especially urticaria which affects the mucous membrane of the oral cavity, is extremely close; and urticaria, it will be admitted, implies vaso-dilation.

In some cases of asthma it has been observed that general enlargement of the chest, accompanied by descent of the diaphragm, precedes the onset of dyspnœa. Several lady patients

Digitized by Google

inform me that the earliest warning they experience of an impending fit of asthma during the daytime is an increasing tightness of the corset; if this garment can be loosened immediately they obtain relief for a time and the violence of the dyspnœa is deferred, otherwise the paroxysm quickly attains its climax.

[12]Now the smaller bronchial passages are devoid of cartilage and, unlike those of larger size, are liable to close by collapse; increasing swelling of the mucous lining will, by narrowing their lumen, greatly increase this tendency, and the only conceivable means of compensation is an expansion of the whole chest cavity. The prædyspnœal progressively increasing distension of the chest, which occurs in asthma, is quite compatible with a progressively increasing swelling of the mucous membrane, but less so with the idea of muscular spasm of the tubes. During the height of the paroxysm expiration to any material degree would lead to lobular collapse; hence the chest is maintained in a state of almost full expansion and the movements of respiration are restricted to a narrow margin on either side of this point. Obviously in this way only can a passage of communication between the outer atmosphere and the air vesicles be preserved; the fixation of the chest walls in the position of extreme inspiration and the strong diaphragmatic contraction are conservative measures, compensatory of the diminution of the bronchial lumina by vaso-dilation. Starling says the asthmatic[13] "type of breathing is often described as being marked by expiratory dyspnœa. This description is, however, erroneous. The muscles, which in these cases are contracted to their utmost, are the inspiratory muscles; the expiratory muscles, such as the abdominal, will be found to be quite flaccid during expiration." I can fully confirm this statement.

The theory of muscular spasm did not assist Salter, imbued as he was with the conservative principle of disease, to understand the "permanent distension" of the thoracic cavity. He says[14]: "I do not see that anything is gained by this distension of the thoracic cavity; the only difference is that the volume of air locked up in the chest is rather larger, but no more is changed at each inspiration, and it is the amount so changed, and not the quantity contained in the lungs, that relieves the demand of respiration." Nevertheless, it must be admitted that the distension of the chest is not inconsistent with the theory of muscular spasm of the tubes.

A demonstration of the localization of the pathological changes in asthma has recently been made by Frankel, who had an opportunity of making a post-mortem examination on a case who had died during a paroxysm; and the morbid appearances seen are consistent with vaso-dilation.[15] "Microscopically marked changes were found in the smallest bronchi (lumen ·15 to ·03 mm.) or bronchioles—*i.e.*, tubes which still retain their stratified columnar epithelium, but which have lost their cartilages and glands, and which are about to break up into the alveolar passages and infundibula; and the changes were confined to tubes of this size."

The suddenness of the onset and subsidence of the asthmatic paroxysm is often adduced as an argument in favour of the theory of muscular spasm of the bronchioles; but those who have watched a case of acute urticaria or angio-neurotic œdema will be able to realize that the onset and subsidence of vaso-dilation, as pourtrayed in the rise and fall of the wheals, is amply rapid to account for the phenomena of the most explosive asthmatic paroxysm.

Clinical observations constituting circumstantial evidence in favour of the vaso-motor theory.—On the hypothesis that swelling of the mucous membrane due to vaso-dilation, correlative of vaso-constriction elsewhere, is the proximate cause of the dyspnœa, we can explain most of the observations which have been made concerning asthma. Everything which tends to reduce the swelling of the mucous membrane in the affected area will tend to relieve the dyspnœa, and conversely. The swelling might be reduced: (1) by increase of the mucous secretion, (2) by vaso-constriction in the affected area, (3) by vaso-dilation elsewhere or generally, (4) by reduction in the force of the heart beat, and (5) by reduction in the total amount of blood in the circulation. On the other hand, the swelling might be increased: (1) by decrease of the mucous secretion, (2) by increase in the vaso-dilation of the affected area, (3) by increase in the vaso-constriction elsewhere or generally, (4) by increase in the force of the heart beat, and (5) by increase in the total amount of blood in the circulation.

Conformably with these theoretical deductions, we may set forth the following series of clinical observations:—

1. The inverse relation between the amount of secretion and the intensity of the dyspnœa may be observed in the purest varieties of "spasmodic asthma." Salter says[16]: "Expectoration never takes place without a marked abatement of the dyspnœa." The relationship is, however, more conspicuous in the cases regarded as mixtures of bronchitis and asthma; and, indeed, it is observable in bronchitis of all kinds, even in the bronchitis which is associated with tubercular phthisis. Drugs which promote secretion and expectoration relieve dyspnœa, and conversely. The happy action of iodide of

Digitized by Google

potassium, well marked in both bronchitis and asthma, may, perhaps, be in part, though not altogether, explained in this way.

2. We have seen that in migraine the local application of cold to the dilated area may be followed by vaso-constriction and relief; so it would appear to be with asthma. In asthma, cold can, of course, be applied to the dilated area only by means of cold air; but it seems to me that much of the relief which the asthmatic obtains by sitting at an open window in winter comes about in this way. Such relief would obviously tend to be counteracted if much of the surface of the body were exposed simultaneously.

It seems probable that much of the relief which follows the inhalation of certain fumes is attained by means of direct vaso-constriction in the dilated area. For it is not only the smoke of "anti-spasmodic" herbs, such as stramonium, which is effectual in relieving the asthmatic paroxysm. The fumes of burning nitre-paper, which are nothing if not irritating, afford, according to Salter,[17] in many cases the most striking relief; in some they are the only effectual remedy. And Trousseau[18] found the vapour of ammonia very useful in some cases.

The action of both these remedies upon the bronchial mucosa seems similar in all respects to that of a pinch of snuff upon the swollen mucous membrane of the nose in nasal catarrh. Those who have tried this remedy know that immediate and complete, though temporary, relief from the obstruction commonly follows; and this is obviously effected through stimulation of the vaso-motor nerves and consequent vaso-constriction. The action of astringent solutions in gonorrhœa, conjunctivitis, etc., is parallel.

Such vaso-constriction it would seem is not invariably restricted to the stimulated part or its immediate neighbourhood. I have seen the most violent paroxysm of asthma *cease instantaneously* upon the application of chromic acid to the inferior turbinated, and others have had similar experiences. Trousseau[19] states that the application of strong ammonia to the pharynx sometimes affords relief, though occasionally it has the opposite effect, and I know of one asthmatic who often mitigates his dyspnœa by taking snuff.

There can, I think, be little doubt that in some cases the relief which follows the inhalation of chloroform is attained through the medium of direct vaso-constriction of the dilated area. It is observable that in some cases, though not in all, chloroform vapour causes visible anæmia of the congested nasal mucosa; and Salter[20] says of one case of asthma: "The first act of inspiration was accompanied with a sensible relief long before the blood charged with chloroform could have reached the nervous centres."

But all stimulating vapours do not cause vaso-constriction. Some, conformably with the old aphorism "*ubi stimulus, ibi fluxus*," cause vaso-dilation; hence some vapours (for example, the vapour of burning sulphur) may greatly intensify an asthmatic paroxysm. Personal idiosyncrasy comes in here very largely. Some individuals are rendered worse by vapours, which give instant relief in others. Salter[21] found chloroform inhalation one of the most certain means of relief, but he saw one case—and one case only—in which it added to the dyspnœa. In the following case the different influence of vapours was well marked. Dr. Brockway, of Brisbane, was administering ether for Dr. Hawkes to an asthmatic girl, aged 21. The ether induced loud wheezing and some cyanosis; the substitution of chloroform was followed instantly by relief; ether was again given, with the same result as at first, and the operation had to be completed under chloroform. It might be suggested that in some of these cases, in which exaggerated dyspnœa follows the inhalation of certain vapours, the result is attained through constriction of the muscular fibres of the bronchioles, acting defensively and superadded to the vaso-dilation. The suggestion cannot, of course, be disproved, but it seems to me an unnecessary one.

Though probably not an example of vaso-constriction, it will be convenient here to allude to the beneficial influence of compressed air inhalation on the asthmatic paroxysm.[22] This has been found to afford much temporary relief; and its action would seem to be that of direct compression exerted on the swollen mucous membrane, and, therefore, analogous to general compression of the scalp in migraine.

3. Vaso-dilation in areas other than the bronchial, or generally, is an important means of relief in asthma. Many therapeutic remedies seem to act essentially in this way. Those well-known vaso-dilators, amyl nitrite or nitroglycerine,[23] are admittedly most useful in the asthmatic paroxysm. Part of the relief which sometimes follows the internal administration of belladonna and stramonium may be due to cutaneous vaso-dilation, and the same may be true of the inhalation of chloroform. Alcohol is a powerful vaso-dilator, and Salter found it in some cases the only remedy which gave relief. Opium and morphia act similarly on the skin,[24] and their immediate effect on the asthmatic paroxysm is beneficial.

Heat is probably one of the most efficient vaso-dilators, and I have never known a hot

Digitized by Google

bath, water or vapour, fail to give some relief in an asthmatic paroxysm. The experience of one of my patients practically amounts to a demonstration. During a severe paroxysm he entered a portable Turkish bath, the temperature of which was probably above 150 deg. F. Quickly the paroxysm subsided, and the succeeding comfort was so enjoyable that he remained in the bath for about 40 minutes. At the end of that time he returned to his bed in an adjoining room. On the way he felt his skin becoming cold and the dyspnœa returning; the colder his skin became the more violent became the dyspnœa. Everything was done to relieve his extreme sense of cold—hot bottles, blankets, etc.—but for a time without success. Eventually the warmth returned to the surface, and then only did the dyspnœa abate. In this case there was no question of the hot air causing relaxation of bronchial spasm through direct local action, since the head and face were excluded from the bath.

Short of hot baths, heat to the surface gives relief. Graves[25] says: "It is often serviceable to stupe the whole chest during the fit with flannel wrung out of water as hot as can be borne."

On the grounds that cold locally applied is capable of promoting vaso-constriction, and that cutaneous vaso-dilation reduces vascular strain upon other areas, a most efficient means of relieving the asthmatic paroxysm would be the inhalation of cold air combined with the simultaneous application of heat to the surface. This may be effected by means of an inhaler containing broken ice applied to the mouth and nose while the patient sits in a vapour or hot-air bath, from which the face is excluded. In the cases in which I have tried this procedure the anticipation as to its effect has been fully borne out. I need hardly say, however, that the beneficial influence is purely temporary. The relief afforded is manifestly attained by the same mechanism as is the relief of migraine by general hot bathing combined with ice to the scalp. The nearest approach to such an experiment which I can find in medical literature is a statement by Frederick Roberts that "a warm footbath with mustard, cold water being drunk at the same time," is effectual in some asthmatic paroxysms.

As in migraine, so in asthma, the vaso-dilation induced by dry cupping often gives marked relief. Of one case Salter says[26]: "Four small-sized glasses close together over the bifurcation of the trachea always gave immediate relief in the worst attacks." I have seen the same.

Pyrexia, in that it implies general arterial relaxation, should exert upon asthma an influence as beneficial as we have seen it exert upon migraine. This is found to be true.

Gout, as already mentioned, is a recurrent pyrexia, and the substitution of gout for asthma, and conversely, has been noticed for many generations. The alternation between these two affections was well illustrated in a case of my own. The patient, a man of 54, had suffered from spasmodic asthma from an early age to the age of 32. Then he was attacked by acute gout, and this affection has recurred ever since at gradually decreasing intervals, but with diminishing intensity. From the first attack of gout to the present day he has had no asthmatic symptom.

The beneficial influence of pyrexia, other than gout, upon asthma, is more conspicuous than the influence of pyrexia upon migraine. Migraine is an intermittent affection, occurring at regular or irregular intervals, and these may be lengthened by various circumstances, such as exercise. Hence probably the interrupting influence of short pyrexial attacks is often inconspicuous, and overlooked by the patient as well as by the physician. Asthma, on the contrary, tends to be continuous, or at least remittent or daily recurrent for weeks together. Hence the intercepting influence of pyrexial attacks of all durations is conspicuous; it is rarely overlooked by the patient, and it has been noted by many eminent medical authorities.

Trousseau [27]relates a case in which an attack of broncho-pneumonia conferred, for the time being, complete freedom from orthopnœa upon an habitual asthmatic. He says: "Although he cannot even now sleep in a bed unless the mattresses be arranged so as to form a kind of armchair, he then slept flat on his back during the whole of his inflammatory attack." Watson refers to two cases in which severe spasmodic asthma was completely and permanently replaced by acute phthisis. Dr. Hawkes tells me of three cases in which asthma remained in complete abeyance during rheumatic fever, typhoid and influenza, respectively; and in my own experience I have known asthma dispersed, temporarily at any rate, by typhoid, pneumonia, acute bronchitis, dengue, influenza, ague, febrile catarrh, septicæmia and other pyrexial conditions.

It might be anticipated from the foregoing that conditions which tend to increase vaso-constriction of the cutaneous area will tend to intensify asthmatic dyspnœa and to precipitate a presumably impending attack; this anticipation is fulfilled. Salter[28] says: "I am acquainted with the case of an asthmatic lady whom a walk of two minutes in her garden will render asthmatic if her chest is bare. This is

Digitized by Google

evidently not from the respiration of cold air, for under identical circumstances the mere fact of her chest being covered will entirely prevent the occurrence of asthmatic breathing: the same result as immediately happens if her feet get damp and cold." This case and others shook Salter's belief[29] that in such cases asthma is a "mere reflex nervous phenomenon." He saw[30] cases in which "cold to the surface and extremities" deranged *immediately* the vascular balance of the bronchial mucous membrane; but his deeply-rooted conviction that the asthmatic paroxysm depends upon muscular spasm of the bronchial tubes led him to suggest that [31] "the vascular condition of the bronchial mucous membrane may be the link between the external cold and the bronchial spasm." When the vascular condition of the bronchial mucous membrane is fully realised, there is, of course, no necessity for importing the factor of bronchial spasm.

Many of the instinctive habits of the asthmatic seem to be governed by the facility with which the vascular balance of the bronchial mucosa is deranged: witness his excessive fear of cold draughts, which he seeks to avoid by casing himself in flannel, by keeping closed the windows and doors, and living in a warm and stuffy atmosphere. His sudden abandonment of these precautions when a paroxysm is present is not inconsistent, for then the sensation of air hunger overrides all other considerations.

The influence of emotion upon asthma is susceptible of a vaso-motor explanation. Different emotions are associated with different vaso-motor disturbances in the same individual. For example, it is notorious that anger may lead to flushing in one, to pallor in another. Hence we find that the emotions produce effects upon the asthmatic which are seemingly contradictory. Salter[32] says: "Psychical stimuli—excitement, fear, or other violent emotion—are adequate to the immediate production of the asthmatic spasm"; and again: "The cure of asthma by violent emotion is more sudden and complete than by any other remedy whatever; indeed, I know few things more striking and curious in the whole range of therapeutics."[33]

Generally speaking, I think emotions associated with cutaneous anæmia—fear, etc.—tend more to induce, emotions associated with cutaneous hyperæmia—excitement of other kinds—tend more to disperse paroxysms. But there are many things to be taken into consideration: there is the action of the heart, which will be considered presently, and there is the condition of the circulation in the splanchnic area. Shock, whether from emotion, pain or other causes, is probably always associated with dilation of the blood-vessels in splanchnic area (Crile); and shock is known to disperse the asthmatic, and, indeed, many other "neurosal" paroxysms.

Salter thinks that emotion acts by causing a "diversion of nervous energy"; but I submit a diversion of vascular pressure offers a more tangible explanation of the facts.

4. Any modification in the action of the heart whereby the work accomplished by this organ is reduced would relieve the strain upon the dilated bronchial area, and such modifications can, I think, be clearly shown to relieve the asthmatic paroxysm. Many remedies given in sufficient doses cause weakening of the cardiac action, as is shown by a tendency to syncope or collapse. Of the class of drugs which he terms depressants or contra-stimulants, viz., ipecacuan, tartar-emetic, and tobacco, Salter[34] says: "As soon as their characteristic effect is established, the dyspnœa ceases, completely ceases, from that moment; no matter how intense the spasm may have been, the moment the sensations characteristic of collapse are felt it yields, the respiration is free, and the patient passes from agony to ease. It is one of the most striking things to witness in the way of an effect of a remedy that can be imagined." He further points out that in habitual smokers and in those who are unfortunate enough to establish a tolerance of tobacco the beneficial influence of this drug is lost:[35] "just in proportion to the sickness and faintness and other miserable sensations is the relief of the difficult breathing."

The same is true of lobelia. Salter was disappointed with this remedy until he began to give it[36] "in doses producing the characteristic depressant action of the drug." Although he firmly believed that asthma, in some cases at least, is started reflexly through irritation of the gastric terminations of the vagus, Salter is careful to point out that[37] "the relief by an emetic is clearly not mechanical, as it comes on the moment the nausea is felt, before any vomiting has taken place; moreover, an emetic affords relief even when the stomach has been previously empty and contains nothing to be vomited." The sudden systolic weakness associated with nausea is well recognised.

On the other hand, drugs and conditions which increase cardiac action may increase asthmatic dyspnœa or precipitate an impending attack. Ammonia may have this effect, so also may alcohol, probably in those cases in which systolic force is increased disproportionately to vaso-dilation. The initial effect of physical exercise is, as we have seen, to increase arterial pressure, probably through increased cardiac action and some venous obstruction; hence

Digitized by Google

sudden exertion increases asthmatic dyspnœa, and may even precipitate impending attacks.

5. A sudden reduction in the mass of the blood will tend to reduce arterial pressure, and thus to reduce the strain upon dilated vascular areas; hence the immediately beneficial influence of venesection and accidental hæmorrhage upon the asthmatic paroxysm.

Trousseau[38] refers to the case of a boy who for three years "had been subject to frequent paroxysms of nervous asthma, which were so violent as to place him at death's door. . . . He was only relieved by bleeding." Dr. Bury, of Southport (Q.), has frequently performed venesection during severe asthmatic paroxysms, and has never known this operation fail to give intense and immediate relief.

In the following case, related to me by Dr. Thomas, resident medical officer at the Sick Children's Hospital, Brisbane, the influence of hæmorrhage upon the asthmatic paroxysm is well shown. A child, aged 2¼ years, was attacked by his first asthmatic paroxysm at 4 a.m. His mother, who was herself an asthmatic, and who slept in an adjoining room, heard him wheezing, and, realising at once what had happened, ran to his assistance. On reaching his bedside, however, she found him bleeding from a severe scalp wound, and the asthma gone. At 11 a.m. he was brought to the hospital with his head bound up. At this time the asthma had returned. When the bandages were removed, the left superficial temporal artery (which had been severed) recommenced to bleed, and the asthma once more quickly subsided.

It may here be mentioned that "hæmoptysis, not by any means a common event in asthma," may occur[39] "as an accompaniment of the asthmatic paroxysm, and in quantity proportionate to the intensity of the dyspnœa." To realise hæmoptysis, proportionate to the intensity of the dyspnœa, is easy on the theory of vaso-dilation, as easy as it is to realise epistaxis and cerebral and other cranial hæmorrhages in migraine and hæmatemesis in gastralgia, all of which are recorded on good evidence; but the theory of bronchial spasm would hardly assist us.

Angina Pectoris.

Trousseau stated emphatically that angina pectoris is a neurosis sometimes quite independent of organic cardiac lesion and, indeed, of all organic lesion. Nothnagel recorded a series of cases which go to prove "that a sudden increase of tension in the peripheral arteries due to a cause acting upon the body from without is capable, in some persons, of giving rise to phenomena approaching those of a paroxysm of angina pectoris."[40] Lauder Brunton demonstrated definitely through the influence of amyl nitrite that peripheral vaso-constriction is in some cases an essential factor in the affection.

But I believe I am correct in saying that none of those who accept the vaso-motor theory of angina lay any stress upon vaso-dilation. Some regard the pain as an expression of cardiac strain, and ascribe the strain to the increased peripheral resistance due to extensive vaso-constriction. Others, impressed with the frequent association between anginal seizures and disease of the coronary arteries, regard vaso-constriction of these vessels as the proximate factor of the symptoms. And yet it seems to me that vaso-dilation of the coronary arteries dependent upon, or at any rate compensatory of, vaso-constriction elsewhere, will explain a far greater number of the observations which are recorded concerning this affection than any other supposition.

As I have before suggested, the possibility of compensation for vaso-constriction by an area of vaso-dilation, though fully recognised in physiology, does not seem to have entered largely into pathological speculations. This oversight is nowhere better illustrated than in the following paragraph from Fagge:—[41] "One point in which the paroxysm of angina pectoris seems to differ from what might be expected, on the view that it depends upon increased tension in the peripheral arteries, is its not being invariably, or even generally, attended with a reduction in the frequency of the pulse. Among Nothnagel's vaso-motorial cases there is only one in which a fall from 80 to 64 or 60 beats in the minute is noted." Clearly this argument ignores the possibility of correlative areas of vaso-constriction and vaso-dilation in mutual balance.

The circulatory phenomena of angina are thus stated by Liveing:—[42] "Although slowing is rare, the rhythm of the heart is often deranged, and the contraction of the arteries and smallness of the radial pulse are often remarkable." We may argue that since vaso-constriction of the peripheral arteries is the rule, and slowing of the heart beat (cardiac compensation) the exception, there must be some internal invisible area of vaso-dilation, and this will lead us directly to consider the hypothesis of vaso-dilation of the coronary area.

The arguments in favour of this hypothesis may be arranged as under:—

1. The instances in which vaso-constriction is associated with pain in the affected area are

Digitized by Google

extremely rare. The sensations associated with this vascular condition, such as numbness, are characterised by depressed sensibility. On the other hand there are innumerable instances in which vaso-dilation and pain are associated, and it is certain that in many such association is one of cause and effect.

2. If we can show that vaso-dilation is the proximate factor of the pain in angina we shall have established a community of pathological mechanism between this and the other affections—migraine, asthma, etc.—with which it has such marked clinical affinities.

3. Fagge says of vaso-motory angina[43]:—"The earliest and most conspicuous symptoms of the paroxysms . . . were coldness and pallor, with numbness and stiffness of the limbs; the palpitation, the feeling of oppression at the chest, the giddiness, the sense of impending death, being all secondary, and attributable to the increased efforts which the heart was called upon to make to overcome the peripheral existence." There is no reason that I am aware of, for making the cardiac muscle an exception to the general rule that increased work implies increased blood supply, and consequently increased dilation of the supply arteries; and if not then we have a strong, a prior argument in favour of vaso-dilation in the coronary area during anginal paroxysms.

4. On the assumption that vascular distension in the dilated coronary area is the proximate factor of the pain, we can explain the action of most remedies which give relief. The vascular tension in the dilated area may be reduced (1) by promoting vaso-dilation generally or in other areas; or (2) by reducing the force of the heart-beat. The first is seen in the effect of nitrites, alcohol, ether, hot foments, hot foot and general baths, stimulating liniments to the extremities, etc. (Nothnagel.) Pyrexia, associated as it is with general vaso-dilation, should disperse anginal paroxysms, just as it does paroxysms of migraine, asthma and epilepsy; and I have seen one case in which this occurred. The intercurrent pyrexia in this case consisted of lobar pneumonia succeeded by empyæma.

The influence of reduction in the force of the heart-beat is seen with nausea and vomiting, physiological actions associated frequently, if not invariably, with distinct systolic weakness. Many observations are recorded showing the abortive influence of nausea and vomiting upon migraine, asthma, epilepsy and even paroxysmal mania. (Floyer, Robert Whytt, Richter, Fothergill, Marshall Hall.) Liveing says: [44]"The use of nauseants and emetics for such a purpose is a very ancient practice." But I am unable to quote from medical literature any instance in which such a result followed in angina. I have, however, seen one in my own practice. The patient suffered for years from anginal seizures, which usually came on between 2 and 4 a.m., and one of which proved fatal. But for some years his own experience had led him to take emetics during a paroxysm, and these rarely failed to give immediate relief.

5. On the same assumption we can explain the action of conditions which precipitate or accentuate paroxysms. The vascular distension in the dilated area may be increased (1) by increasing vaso-constriction generally or in other areas; or (2) by increasing the force of the heart-beat or venous obstruction. The first is seen in [45]the effect of exposure to cold, sudden emotion such as fear and "hastily swallowing cold water"; the second in the effect of muscular exertion of any kind, such as quick walking, "coughing, defæcation."[46] A fortiori a combination of factors which promote vaso-constriction generally or in other areas, with factors which increase cardiac action and venous obstruction, will be especially powerful; hence quick walking uphill in the teeth of a strong cold wind is probably the most certain of all means of producing an anginal paroxysm in one who is predisposed.

But, as we have already seen, muscular exertion increases the general blood-pressure for a short time only, thereafter there ensues a fall of blood-pressure. We should anticipate, therefore, that exercise persisted in would be beneficial in angina; and this has been most decidedly my experience. I have seen many cases dispersed for indefinite periods by simply insisting upon regular and adequate physical exercise. Of course, as in the case of the other vaso-motor disorders, the exercise, to be most successful with the minimum of disadvantage, must on each occasion be commenced gently and gradually increased. The danger of inducing a paroxysm subsides shortly after the commencement of exercise, and does not recur thereafter during the continuance of the exercise.

A correct appreciation of the influence of graduated physical exercise upon functional angina pectoris is, to my mind, of extreme importance in therapeutics. Too frequently, I am sure, we are tempted to connect anginal seizures with organic lesion of the heart; and the inevitable result of this idea, even when it amounts to no more than a mere suspicion, is some curtailment of much-needed physical exercise. The further result is often unfortunate, as in the following case:—A medical man towards the end of his student's career had

Digitized by Google

developed typical anginal seizures, each seizure being associated with palpable tightening of the radial. He consulted several London physicians; no organic lesion was found. He was given general instructions as to his mode of life. These differed in detail with the physician consulted, but all were agreed that he must be especially careful to avoid severe physical exertion. On this plan he continued to suffer at times, moderating attacks by the use of nitrites; but he now enjoys complete freedom, and this result was attained in the main by the substitution of a bicycle for a buggy upon his daily round of visits. This is no isolated case, but one of a series to be published hereafter.

We have noted the occurrence of a malarial migraine, and we have explained it by a community of mechanism between migraine simple and rigor. We have now to note the occurrence of a malarial angina pectoris, doubtless explicable by a similar community of mechanism with rigor. Broadbent says: [47]"A perfectly characteristic attack of angina has been described to me as having occurred in intermittent fever, and serious weakness of the heart was left behind for some time." In such a case, probably, the vaso-dilation compensatory of the general cutaneous vaso-constriction would affect the coronary area, in place of, or perhaps in addition to, the muscular area, which must always be affected during rigor.

It has long been recognised that cases, indistinguishable (or nearly so), symptomatically from functional and organic angina, may arise through flatulent distension of the stomach. In a case of my own the attacks came on shortly after meals: the pain was intense, its character and distribution typical, and there was alarming collapse. There was no constriction of the pulse; none of the usual remedies, such as nitrites, did the least good; but complete and instant relief followed eructation of gas, however induced. Such cases we are accustomed to speak of as pseudo-angina, but I submit without sufficient justification; for if we believe the pathological condition proximately responsible for the pain to be one of exaggerated coronary vaso-dilation, then it is easy to see how gastric distension might determine a paroxysm. The heart is crowded upward; either through an increase in the curvature of the aortic arch or otherwise the organ works at a disadvantage; hence greater systolic force is demanded, and consequently an added degree of coronary vaso-dilation. In so far as the coronary circulation is concerned, a faulty position of the heart will have an effect similar to an increase in the peripheral resistance, however induced; and we can understand the failure of the nitrites or other therapeutic remedies which act only upon the periphery.

REFERENCES.—(1) On Asthma, by Hyde Salter, 1868, pp. 30, 31. (2) Text Book of Medicine, Fagge, 1891, p. 1147, vol. i. (3) Principles and Practice of Medicine, 1894, p. 499. (4) On Asthma, 1868, p. 72. (5) *Lancet*, June 1st, 1901, p. 1522. (6) On Asthma, Hyde Salter, 1868, p. 73. (7) Ibid., p. 69. (8) Text Book of Medicine, Fagge, 1891, vol. i., p. 1143. (9) Megrim and Sick Headache, 1873, pp. 331, 332. (10) Goodhart in Clifford Allbutt's System of Medicine, vol., p. 300. (11) Text Book of Medicine, Fagge, 1891, vol. i., p. 1147. (12) Text Book of Physiology, Foster, p. 561, ed. v. (13) Text Book of Physiology, E. A. Schäfer, vol. ii., p. 312. (14) On Asthma, 1868, p. 76. (15) I. J. Parkins' Practitioner, 1900, p. 447. (16) On Asthma, 1868, p. 10. (17) On Asthma, 1868, p. 244 *et seq.*, also 374. (18) Clinical Medicine, vol. i., p. 651. (19) Clinical Medicine, vol. i., p. 650. (20) On Asthma, 1868, p. 217. (21) On Asthma, 1868, p. 217. (22) Ibid., p. 316. (23) Pharmacology, Therapeutics and Materia Medica, Lauder Brunton, 1885, pp. 712, 713. (24) Ibid., p. 771. (25) Clinical Medicine, New Syd. Soc., vol. ii., p. 99. (26) On Asthma, 1868, p. 398. (27) Clinical Medicine, vol. i., p. 625. (28) On Asthma, 1868, p. 312. (30) Ibid. (31) Ibid. (32) Ibid., p. 147. (33) Ibid., p. 210. (34) Ibid., p. 184. (35) Ibid., p. 187. (36) Ibid., 240. (37) Ibid., p. 267. (38) Clinical Medicine, v. i., p. 643. (39) On Asthma, Hyde Salter, 1868, p. 371. (40) Text Book of Medicine, 1891, vol. ii., p. 22. (41) Text Book of Medicine, Fagge, vol. ii., p. 23, 1901. (42) Megrim and Sick Headache, 1873, p. 332. (43) Text Book of Medicine, 1891, vol. ii., p. 22. (44) Megrim and Sick Headache, Ed. Liveing, 1873, pp. 368, 371. (45) Text Book of Medicine, Fagge, 1891, vol. ii., p. 19. (46) Ibid. (47) Lumleian Lectures, 1891, *British Medical Journal*, p. 748.

DIABETES.

By C. Reissmann, M.A., M.D. (Camb.), B.Sc., M.R.C.P. (late University and Broderip Scholar, and Demonstrator of Pathology, Middlesex Hospital, London), Adelaide.

"AT present diabetes stands alone, its origin and nature undiscovered, and its relation to other diseases uncertain." That is the unhappy confession of two eminent physicians in the latest edition of a well-known text-book of medicine. Yet is diabetes no new disease. The ancient Egyptians knew it; it was known to the Romans, and the name diabetes, which means a siphon, was given to it by the Greek Aretaus. The early natives of India knew it, and it is still common among their upper classes. But to English observers belongs the credit of showing that diabetes is something more than a merely excessive flow of urine. The famous anatomist, Dr. Thomas Willis, whose name is chiefly remembered to-day in association with the circle of arteries at the base of the brain, which he described, published in 1674 a work entitled the "Pharmaceutice Rationalis," a copy of which is preserved in the British Museum. And this is what Willis says of diabetes:—

"The diabetes was a disease so rare among the ancients that many famous physicians have not so much as mentioned it, and Galen never knew above two that were troubled with it; but in our age, that is given so to drinking, and especially to guzzling of strong wine, we

Digitized by Google

meet with very frequent, not to say daily examples and instances of this distemper. Such as are troubled with this distemper pass water much more than they drink or take of liquid nutriment, and likewise they have a continual thirst, a lingering fever, and, as it were, an hectick always upon them. But as to what several authors say that the drink is little or nothing changed, there is no truth in their assertion, because in all people that I ever happened to know (and I believe it is to be so in all) their urine was very different, not onely from the drink that they took in, but also from any other humours that are usually generated in our bodies, being exceedingly sweet, as if there had been sugar or honey in it. It is a disease of the blood rather than of the kidneys, inasmuch as the mass of the blood doth, as it were, melt, and is too copiously dissolved into serousness. And that is the reason also why the remaining part of the blood, when the serum flows away so plentifully, grows much thicker and more apt to curdle, as you may conclude from the quickness and strength of the pulse. In order to keep the blood fluid and prevent it from clotting, patients drink much. Liquids are drawn from all parts of the body into the blood, and the very parenchyma or stuffing of the tissues is melted to supply the blood with liquid. The loosening of the mixture of the blood is caused by acids in the circulation. These are derived from drinking of cider, Rhine wine and other acid drink."

It is interesting to observe that the view is yet held to-day that diabetic coma is due to an acid in the circulation. Willis was much puzzled by the sweetness of the urine; he says it is a "knot not easy to untie," that sugar is a concretion of salt and sulphur, and the urine is sweet because sulphur derived from the food consumed combines with the salts in the blood to form sugar. Thus having explained that diabetes is due to a dissolution of the blood into serousness, Willis proposes the astonishing treatment that we shall give rice, white starch, gum arabic and other thickening medicines. At the time when Willis wrote, and for many years after, there was no chemical means for recognising sugar: taste was the only test. Willis, with the enthusiasm of an investigator, noticed that the urine of some diabetics was tasteless and insipid, while that of others was sweet as honey. Hence the distinction of diabetes mellitus and diabetes insipidus.

It was not until the last century that a careful scientific study of diabetes was first made, and the investigations of Claude Bernard, Minkowski, Pavy, Von Mering, Von Noorden and others have earned for them permanent places among the Masters of Medicine.

Claude Bernard was the first. He, like many of the great makers of Science, was of humble origin. The son of a small winegrower at Saint Julien, he was born in 1813; he served his apprenticeship with a dispensing chemist and then wandered to Paris, where he hoped to make his fortune as a playwriter. Instead, he became a student of Medicine. Majendie, the leading physiologist of France, recognised his genius and made him his assistant. And to Majendie Claude Bernard owed his opportunities for research.

At this time physiologists had ranged themselves into two schools—those who explained all obscure physiological processes as the result of some peculiar vital force, and those who applied chemical and physical principles to the interpretation of all the processes of life. Following Majendie, Bernard was a champion of the latter school. It was taught that anabolic processes were a function of plant life only—plants alone could build up complex substances from simpler materials. And, similarly, one believed that katabolic processes were a function of animals only. Claude Bernard broke this spell. He discovered glycogen. "Dumas is wrong," he said, "in saying that animals do not construct, that the liver does not construct; the liver does construct—it constructs dextrose." This construction of sugar which took place in the liver and was sent forth into the general circulation, Claude Bernard described as an internal secretion, and thus introduced a wholly new idea into physiology. And he further showed that the conversion of glycogen into sugar depended upon the action of a ferment.

The physiology of carbohydrates which Claude Bernard taught was briefly this:—The carbohydrates of food are absorbed and reach the portal blood chiefly in the form of dextrose. Arrived at the liver dextrose is converted into glycogen and as such it is stored, just as starch is stored in the tuber of the potato, or fat in the corpora adiposa of the frog. The liver acts as a great carbohydrate bank. By the action of ferment formed in the liver glycogen is again converted into dextrose and paid out into the general circulation to undergo combustion in the tissues. This glycogenic or sugar-forming function may become disordered, and excess of sugar may escape into the circulation, and so into the urine; then we have diabetes. This explanation of the nature of diabetes which Claude Bernard put forward as early as 1855 is the view which still commands the greatest number of adherents.

Now, at the time when Claude Bernard was making these investigations there was working

Digitized by Google

in his laboratory a young student, who is to-day a distinguished London physician, and who has now spent half a century in the study of diabetes. The views of Dr. Pavy are, perhaps, not as widely known or as generally accepted as are those of his master. But no one who has taken the trouble to study his researches can fail to appreciate the thoroughness of his investigations or the soundness of his deductions. Pavy teaches that part of the carbohydrates of food are absorbed from the digestive tract as dextrose, and so reach the liver. Here dextrose is converted into glycogen. Thus far the view of Pavy agrees fairly with that of Claude Bernard; but, whereas Claude Bernard taught that glycogen leaves the liver in the form of dextrose to reach the general circulation, Pavy denies this. Pavy maintains that sugar having once reached the liver, and being stored as glycogen, never again leaves it as dextrose; the term glycogen is, therefore, a misnomer. Glycogen does not form sugar during life, but becomes converted into fat, or incorporated into proteid. The liver is a sugar-stopping organ; it prevents the passage of dextrose into the general circulation, and it is only when this, its normal function, is impaired or lost that sugar escapes into the circulation, and diabetes follows.

Such a view is entirely in opposition to the teaching of Claude Bernard, but we must admit that it is based upon the results of a life-long and laborious investigation. This investigation showed that the liver during life does not contain more sugar than other parts of the body; that there is no appreciable difference between the amount of sugar in arterial and venous blood; that after the ingestion of carbohydrate the portal blood alone may carry carbohydrate amounting to five or even more parts per 1000, whereas the blood leaving the liver does not contain more sugar than is contained in any part of the arterial or venous circulation—0·6-1·0 parts per 1000. According to Pavy, the formation of sugar in the liver, which undoubtedly occurs after death, is a post-mortem change. We all become diabetics when we die, but few of us are diabetics in life. He showed that if the liver be plunged into boiling water after rapid removal, the usual post-mortem formation of sugar is prevented. And he concludes that this post-mortem sugar-forming or glycogenic function results from the action of a ferment which appears at death. He draws an analogy between this action and the coagulation of the blood. Blood taken from the body coagulates owing to the formation of a ferment (fibrin ferment). But coagulation may occur abnormally in the vessels during life. Similarly, in life, a pathological conversion of glycogen into sugar may occur, and the result is glycosuria.

Pavy has attacked the problem from another side. It had long been known that mucin, a substance which in some respects resembles a proteid (it is now classed as a compound proteid) has a glucoside structure. It yields by treatment with dilute mineral acids a carbohydrate termed animal gum, which can be converted into a non-reducible sugar. In a paper read before the Royal Society, in 1893, Pavy showed that egg albumen and most proteids, when acted upon by dilute mineral acids, or by super-heated steam, yields a copper oxide reducing sugar. The proteid molecule, therefore, has a glucoside structure. Under certain circumstances it is capable of splitting off a substance which in all respects resembles dextrose. Thus egg albumen yields 1 per cent. to 3 per cent. dextrose; the proteid from blood serum, 0·6 per cent. to 1 6 per cent.; the proteid of haricot beans, 9·1 per cent.; gluten, 6 per cent.; mucin, 2·8 per cent.

Working in Professor Schäfer's laboratory, in 1895, I believe I was the first to verify these observations, and I had no difficulty in obtaining from purified egg albumen, by hydration with dilute sulphuric acid, a fair abundance of dextrose, which gave all the ordinary reactions of that substance, including the formation of crystals of glucosazone. The glucoside structure of proteid has since been abundantly confirmed, and is now a universally accepted fact.

Now, if on decomposition proteid will yield dextrose, we shall not be surprised to find that dextrose is also a factor in the construction of proteid. The old observation of Pasteur that yeast cells will grow in a medium of tartrate of ammonia, yeast ash and sugar is an illustration of the fact that Nature makes use of sugar in the building up of protoplasm. In the higher vegetable organisms there is found a substance termed asparagin (amido-succinamic acid), which is in structure similar to leucin and tyrosin, and, like these bodies, is formed during the decomposition of proteids. And in plants carbohydrates enter into combination with asparagin and a sulphur containing body to form proteid; hence the study of its decomposition, like that of its synthesis, illustrates the glucoside structure of proteid.

The story of the fate of carbohydrate foods which Pavy tells is shortly this. The molecule of most carbohydrates is very large—too large to be capable of absorption from the intestine. Thus starch $(C_6H_{10}O_5)_n$, where n is equal to four or more. By the action of the digestive ferments starch is split up into a series of substances such as dextrins and maltoses of

Digitized by Google

gradually diminishing molecular size. The end product of the digestion of starch is dextrose ($C_6H_{12}O_6$), a molecule of which is at least four times smaller than the original starch molecule. At the same time, through the activity of proteolytic ferments, the proteids of food are similarly dealt with. Molecules of proteid of large size and complex structure are split into a series of substances, the proteoses and the peptones, substances of diminishing molecular size and increasing power of diffusion; and Pavy suggests that through the instrumentality of the cells lining the villi of the small intestine, combination takes place between the two end products dextrose and peptone. The proteid which results from this synthesis is absorbed through the lacteals, or passes directly into the portal blood. The marked alteration in the appearance of the cells of the villi which is observed during digestion is significant of great chemical activity. That peptone disappears from view in the alimentary canal and reappears in the portal blood as proteid has long been known. The conversion takes place in the chemical laboratory of the cells lining the villi. And it is possible that these cells make use of sugar in this conversion as yeast does in Pasteur's experiment.

But Pavy does not claim that all the dextrose is made use of in this way in the intestinal walls. Some at least enters the portal blood unchanged, and reaching the liver is stored as glycogen. The liver is a last resting place for dextrose, for the hepatic cells deal with glycogen as the cells of the small intestine dealt with dextrose, using it in the manufacture of proteid or of fat. Thus has dextrose work to do of a higher order than mere combustion in the general circulation; it becomes in the liver an integral part of the highest and most complex tissues of the organism.

Now, while these investigations were being carried on in England, some important observations of an entirely different nature were made on the Continent. It is now more than 100 years ago that Cawley, an English physician, noticed that some relation exists between diseases of the pancreas and the appearance of sugar in the urine. And in 1877 Lanceraux, after making a series of clinical and anatomical observations, definitely described a disease which he called "diabète pancreatique." Although they attracted some attention at the time these facts were practically forgotten, when, in 1890, von Mehring and Minkowski made the very important discovery that complete extirpation of the pancreas in the dog, including all accessory lobules, resulted in severe diabetes, and terminated in death in a few weeks. There were thirst, a voracious appetite, polyuria, excess of sugar in the blood; sugar, acetone, diacetic acid, oxybutyric acid and excess of ammonia in the urine, and the animal died in coma. In short the animal exhibited all the classical signs and symptoms of diabetes mellitus, as seen in man.

The experiments have been repeated and the results confirmed by more than one observer. And the statement appears to hold good for every kind of animal, including the tortoise and the frog. But if the removal of the pancreas be incomplete, this result may not follow; or if the greater part of the gland be removed, and the small remaining portion still served with an artery and a vein be grafted under the skin, diabetes does not follow. If, however, at any subsequent period the grafted portion be excised, all the symptoms of diabetes rapidly supervene, and the animal dies in coma. It is not by virtue of some substance contained in the pancreatic juice and secreted externally into the digestive tract that diabetes is prevented in the healthy animal; for if the pancreatic secretion be diverted, and, by placing a canula in the duct of Wirsung, be collected and prevented from entering the intestine, diabetes does not follow. Therefore it has been suggested that the glandular cells of the pancreas have a double secretion, that they secrete pancreatic juice into the duct of Wirsung, but in addition they pass some substance into the blood, and that this internal secretion in some way prevents the occurrence of diabetes in health.

However, this view cannot safely be held. For if paraffin be melted and allowed to run along the pancreatic duct, there to solidify, the secretive activity of all cells connected with the duct is arrested, yet does diabetes not follow. Therefore it is not the ordinary glandular cells of the pancreas that are concerned with the prevention or causation of diabetes. Now, as early as 1869 Langerhans demonstrated that there exists in the pancreas, besides the proper secreting structure of tubular alveoli, certain highly vascular patches or clumps of epithelium-like cells. These cell islands have been shown by Harris and Gow to be present in man and most animals, birds, amphibia and reptiles. They are seen as rounded elongated masses of cells whose protoplasm does not stain, and is devoid of granules. Each cell has a deeply-staining nucleus centrally placed. These cells have no connection whatsoever with the pancreatic duct. They are found in the interglandular connective tissue, and form a honeycomb meshwork with spaces which in some cases appear to be lined with endothelium. Each clump of cells is surrounded with a rich

Digitized by Google

network of blood-vessels. These cell islands of Langerhans, then, are ductless glands analogous to the thyroid body, the suprarenal capsule, and the pituitary body. Owing to their structure and situation, the product of their cell metabolism cannot reach the pancreatic duct; it must pass directly into the vessels that encircle them. And from all that has been said the inference is a strong one that the absence of the internal secretion of these cell islets is a direct cause of diabetes. This explains why complete extirpation of the pancreas results in diabetes; it explains Minkowski's grafting experiment, and it explains the paraffin experiment. As myxœdema follows destruction or removal of the thyroid body, and Addison's disease follows destruction of the adrenals and acromegaly succeeds destruction of the pituitary body, so does diabetes result from a destruction of the islands of Langerhans.

The nature of this internal secretion of the islands of Langerhans and how it acts is wholly unknown. The blood which leaves the pancreas, and which presumably carries this secretion, passes into the splenic and superior mesenteric veins, and so through the portal veins enters the liver. And it may be that here the secretion controls the excessive formation of a glycogenic ferment, if we accept Claude Bernard's view that there is a free ferment in the liver; or it may prevent the liberation of such a ferment, if we accept Pavy's view that the ferment is locked up in the form of a zymogen. These are two of the more plausible theories that have been advanced to explain its function.

Now, if it be true that the so-called islands of Langerhans have an internal secretion, the absence of which is a direct cause of diabetes, we shall expect that pathologists will be able to supply us with confirmatory evidence. As is well known, it is not uncommon to find a lesion of the pancreas in a fatal case of diabetes. Twenty-four consecutive cases of diabetes, in which the pancreas was examined at death, are reported in the "Encyclopædia Medica." In 11 of these cases there was distinct evidence of a pathological change in the gland; a chronic interstitial inflammation resulting in cirrhosis and atrophy was the condition most frequently noted, reminding us of the chronic interstitial nephritis associated with uræmia, and the chronic interstitial hepatitis associated with cholæmia. Osler records that a gross examination of the pancreas made in 15 cases of diabetes that came under his notice showed that in nine cases the gland was atrophic.

A few years ago, in 1899, when I was house physician at the Middlesex Hospital, two cases of diabetes died with coma in the wards in which I was on duty. In each the pancreas was cirrhotic. I removed pieces from the head, body and tail of the gland, and cut them in serial sections. The sections are on the table to-night. In one or two of these sections the remains of a few cell islets can be seen in a cirrhotic condition, but in the majority of them no trace of cell islands is to be discovered. Definite changes in the islands of Langerhans were first described and published by Ssobalew only three years ago. He reported two cases of diabetes with chronic interstitial pancreatitis, in which, on microscopical examination, the cell islets were found completely atrophied. Two years ago Opie reported 11 cases of diabetes. Four of these showed marked changes in the pancreas. In one a great part of the secreting tissue was in a fair state of preservation, but the cell islets showed advanced hyaline degeneration. In one there was chronic interlobular pancreatitis; in two there was interacinous pancreatitis—that is, the morbid condition was chiefly confined to that part of the gland in which the cell islets are situated. Later the same observer published a case of considerable interest. A negro woman aged 54 died of diabetes without coma. In her a careful examination of the pancreas showed that while the secreting portion of the gland was healthy and unaltered, the cell islets were transformed into a homogeneous hyaline substance. But for the fact that the attention of the examiner was specially directed to the condition of the cell islets, this case might have been included in the larger class of cases in which the pancreas is stated to be normal.

In July, 1902, J. Dutton Steele collected 35 cases of diabetes in which the cell islets showed pathological change. In 24 of these the lesion was of an inflammatory nature, and affected both the glandular portion and the cell islets; but the affection of the cell islets is stated to have been much more intense. In six cases the islets were in a state of hyaline degeneration, four showed chronic interstitial pancreatitis with secondary involvement of the islets, and one acute necrosis involving the islets. We may, therefore, conclude that the facts supplied by the physiologist, confirmed as they are by the investigations of the pathologist, furnish a convincing proof that the absence of an internal secretion produced by the cell islands of Langerhans causes diabetes.

(To be continued.)

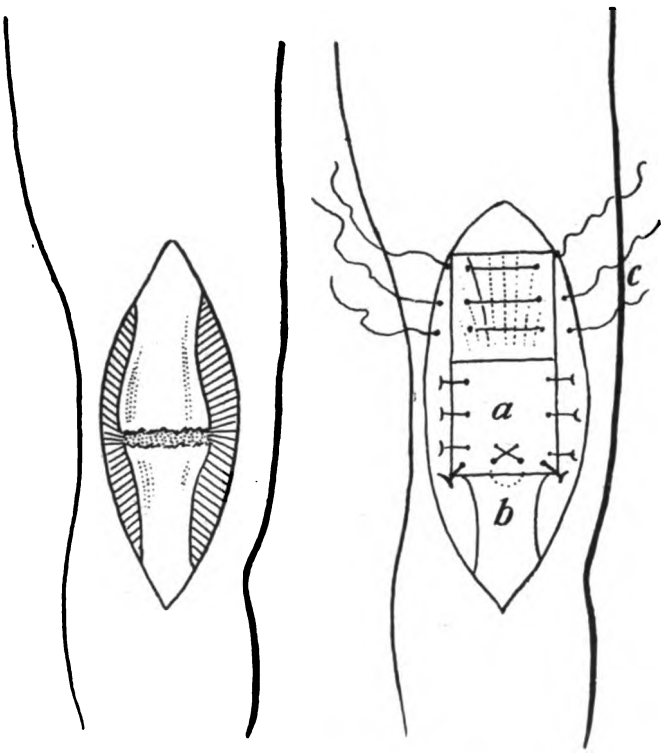
Digitized by Google

FERRARESI'S TENOPLASTY FOR FRACTURE OF PATELLA.

By T. Fiaschi, M.D., Ch.D. (Pisa and Florence), Hon. Surgeon Sydney Hospital.

This method is described by its author as follows:—

"Longitudinal incision on the middle of patella for about 15 cm. (6 inches), starting from a point 7 cm. (2¾ inches) above the base of patella, and extending downwards to a point below its apex. This exposes tendon of the quadriceps ext. femoris and the anterior surface of patella and of the ligamentum patellæ. Dissection from the tendon of the quadriceps femoris of a tendinous flap, attached with its base to the base of patella, 2 mm. (⅛ of an inch) thick, as long as the patella, and of the same width, so that when reflected downwards it may cover the whole surface of patella. An assistant then draws together the fragments of patella, keeping them in apposition, whilst the operator turns down the tendinous flap on the anterior surface of patella, and fixes it with a looped suture to the upper portion of the ligamentum patellæ. Then, with interrupted sutures, fixes all round the edges of the tendinous flap to the lateral ligaments, and to the tendinous structures that surround the patella, which in such a manner remains covered and united by a cap of fibrous tissue. This is resistent, and prevents the slightest displacement of the fragments. The dissection of the tendinous flap requires care, so as not to cut it either too thick or too thin. The edges of gap left in the tendon of the quadriceps femoris are brought together by three or four sutures, then the skin is sutured over. The after treatment consists in keeping the limb on a back splint for a month. Then this is removed, and massage with passive and active motion used."—*Il Policlinico, November, 1902, page 550.*



a.—Tendinous flap dissected from quadriceps ext. femoris, and folded down over fractured patella.
b.—Looped suture attaching free edge of flap to ligamentum patella.
c.—Sutures bringing together edges of gap left in the tendon of quadriceps.

The advantages claimed for this method are that no silver wire or other unabsorbable substance is introduced, that good coaptation of the fragments is secured and prompt union follows, so that within a month from the fracture it is possible to begin passive motion, and thus avoid that stiffness of the knee-joint which so often follows these fractures. Furthermore, this method is advocated as specially fit for the treatment of comminuted fractures of the patella. It avoids the risk of further splitting the small fragments if these are drilled, or of obtaining a very large deformed patella, which generally follows imperfect apposition of the fragments, and so greatly impairs afterwards the functional value of the knee-joint. I have tried this method in three cases, and can recommend it to you as easy of execution, and, under strict asepsis, fruitful in good results.

My first case was in the person of a ship's mate, who sustained a transverse fracture of patella by direct violence. The sutures used to attach the flap were kangaroo tendon for the loop and No. 3 catgut for the sides. As there had been considerable extravasation of blood internally to patella, I drained dependent portion of hæmatoma by four strands of No. 3 catgut passed through a small lateral stab wound. The skin was sutured over with catgut. The operation was followed by osseous union; but not yet sufficiently confident in this new operation, I unnecessarily put the limb in plaster of paris at the end of first month.

Digitized by Google

begun. Within three months from operation the patient was able to walk well, to run up and down stairs, and to flex the knee easily to a right angle, so that he resumed his duty on board his ship.

My second case is the patient that I am now exhibiting. He, also, is the mate of a ship, 49 years old and 15 st. in weight. His fracture was transverse and due to muscular action. Whilst walking down hill he stumbled; on making an effort to recover himself he felt a snap in the knee and fell with his limb useless. The fracture took place on June 4th last. He was operated on the following day, and a month later, on July 6th, the back splint and dressings were removed. Wound found to be united by first intention, and active and passive motion with massage gradually begun. On July 15th he could already flex his knee to an angle of 45 deg. and walk with assistance. To-day he can walk without sticks, go up and down a staircase, and flex up to 70 deg.

A third case, also a transverse fracture, is now completing his month after operation, is doing well, and on Monday next I shall remove his limb from the back splint and start motion, etc. Ferraresi has recorded eight cases by this method, all successful.

This teno-plastic method has been adopted also for fracture of the olecranon. A tendinous flap half an inch wide and 1 mm. ($\frac{1}{25}$ of an inch) thick is dissected from the tendon of the triceps brachii, folded down over olecranon, whilst detached fragment is drawn down by assistant to ulnar portion of fracture and attached by its free edges with interrupted sutures to the aponeurosis of the muscles of forearm. The limb is then immobilised in semiflexion and kept so for three weeks, when the splint is removed and motion and massage begun.

Ferraresi records four cases with excellent results. I did one three weeks ago, found the operation easy, the patient is doing well, and I hope to exhibit him to you at some other time.

(Read before the New South Wales Branch of the British Medical Association.)

The new Commonwealth military regulations for medical attendance provide that any officer in the permanent forces may receive medical attendance at the public expense only on condition that he is at a station where there is a military medical officer appointed for the duty, or where there is a civilian practitioner who has received a military medical appointment. Officers not living in barracks are entitled to medical attendance provided that they reside within a radius of two miles from barracks. Officers or soldiers injured in the execution of their duty are entitled to recover reasonable expenses for medical attendance should the services of a military doctor or a civilian doctor in medical charge of the troops not be available.

COLUMNAR-CELLED CARCINOMA OF CÆCUM. EXCISION.—CLOSURE OF BOTH ENDS OF INTESTINE.—LATERAL ANASTOMOSIS OF ILEUM WITH TRANSVERSE COLON.—RECOVERY.

By R. A. Stirling, M.D., Surgeon to the Melbourne Hospital.

WHILE cancer of the cæcum seems to be a rather rare disease, as Cumston and Vanderveer, in the "Annals of Surgery," January, 1902, could only obtain particulars of 93 reported cases, after an exhaustive search of the literature on the subject, the chances of a permanent cure after resection seem to be distinctly favourable, on account of the little tendency to metastasis. Körte, of Berlin, reports one case now well over nine years, although the conditions at the time of operation were very unfavourable.

According to Jeannel, Kraussold in 1879 was the first to practice ileo-cæcal resection for an epithelioma involving the valve, which seems to be its favourite starting point; but Billroth improved the technique (1881) by doing a circular enterorrhaphy after closing part of the lumen of the colon by removing a triangular flap from the free border of the colon. Since then Chaput, Maunsell and Doyen have described other methods of directly implanting or invaginating the ends of the divided bowel. "Murphy simply uses his largest-sized button without decreasing the size of the lumen of the colon; but it must be remembered that he has only done this on dogs; and it would seem to us that his button, which is a good fit for his colon, would so distend the ileum that gangrene might result." (Annals of Surgery, 1902.)

There can be no question of the ease and safety of lateral junction of the ileum with the colon by Abbe's method; it does away with the need of any mechanical device not always at hand, ensures a large and permanent opening, without the faintest possibility of leakage. The only drawbacks to it are the length of time required to complete the operation, and the possible infection of the superficial wound through the escape of some of the contents of the bowel. The latter might possibly be remedied by the elastic ligature method, the latest American expedient: a round rubber cord 2 mm. in diameter; a long straight needle armed with this rubber ligature is passed into the lumen of the ileum, and out again at the desired distance from 5 to 10 cm. away from the point of introduction. While an assistant holds the intestine the surgeon stitches the rubber on the needle, and when This was removed after a fortnight, and massage with gradual active and passive motion

Digitized by Google

quite thin draws it rapidly through the intestine. The same step is repeated through the colon. A strong silk ligature is placed across and underneath the rubber ligature between the latter and the point where the colon and ileum come together. A single tie is made in the rubber ligature after the latter has been drawn very tightly. The silk ligature is passed around the ends of the rubber ligature where they cross, and tied securely three times. The ends of the latter are released and cut off, being held by the silk ligature. The other suturing is precisely the same as in Abbe's method. Ochsner describes this as a satisfactory plan in gastro-jejunostomy, but it answers well in dogs in the procedure under notice. (The Journal of American Medical Association, June, 1903.)

REPORT OF CASE.

Percy W., *æt.* 28, a miner, has been living at Eskdale for the last four years. He was admitted into a private hospital April 8th, 1903. He states that two years ago, after an attack of vomiting, he noticed a quantity of blood in the ejecta, and dates his illness from that time. The first symptom he noted was pain, paroxysmal pain, with an interval between the paroxysms primarily of two or three months, then gradually becoming more frequent until at present it occurs many times during the day —is, in fact, *almost* constant. The pain has never been located to the right iliac fossa, and he always refers it to a point just above the umbilicus. During the last fortnight the pain has also been felt in the lumbar region. He describes the pain as "sharp and gripping," at first lasting only a minute or two, "and while working I would have to stop, but for the last three months the incessant pain has compelled me to give over all work." The pain is not affected by food, but it is by exercise. It is worse at night and when constipated —the constipation latterly has become obstinate, although present from the beginning. It has increased along with the severity of the pain. Of late there have been daily many attempts to relieve the bowels with tenesmus, and the passage of a quantity of blood per anum. No vomiting since the commencement of the illness. On examination, patient is sallow and anæmic. He is much emaciated, being 28 lb. below his normal weight of two years ago. Temperature normal; pulse 90. The urine is quite normal; palpation of the cæcum reveals—without an anæsthetic some thickening of the appendical region—under complete anæsthesia, a hard nodular tumour fairly movable in the region of the cæcum. The size, as felt externally, could be compared to that of an ordinary shut fist.

Examination of the stools showed them to be very foul, with a quantity of blood, pus cells, and "fragmentary." For four days he was prepared for operation in the usual way, the bowel being rendered completely empty by free purgation, which much increased the pain, and rectal lavage.

At 11 a.m., April 12th, 1903, Dr. Embley anæsthetised him with ether, Dr. Cole assisting me. An incision four inches long, afterwards increased, was made to the outer side of the right linea semilunaris. Opening the peritoneum revealed a large tumour of the cæcum, most marked in the posterior and inner walls of the bowel, with the appendix floating freely from the lower edge, and the ileum quite free from disease crossing the right iliac fossa obliquely to its insertion. The omentum was adherent to the anterior wall, pulling down the transverse colon with it so as to bring it almost in contact with the cæcum, as if indicating the best route out of the position. The omental adhesions were divided between ligatures, then the ileum divided well away from the tumour and its lumen held between the fingers of an assistant. It was quite empty. The cæcum, which was fairly fixed to the iliac fossa, was peeled out with the fingers sufficiently to get it out through the incision in the abdomen. The meso-cæcum was next divided and a number of cancerous glands seen and removed with it. The peritoneum on the outer side was then snipped through with scissors and the growth thus completely isolated. The colon was now clamped with a pair of Doyen's forceps and divided well away from the disease, its edges tucked in and secured by a purse-string suture, supplemented by a continuous Lembert suture. The edges of the cut ileum were treated in the same way.

The anastomosis now remained. It was quite inconvenient to attempt to suture the ileum laterally to the fixed ascending colon, three of the eight inches of the length of this having been removed. The proximal part of the transverse colon was therefore selected. A continuous Lembert suture united them posteriorly, without undue stretching or kinking of the smaller bowel. This was an inch longer at both ends than the longitudinal sections of the gut; these measured at least three inches. The lower sections were then united by a continuous suture penetrating all the coats, and carried along the upper on each side, being tied at the centre of the latter.

During a lull in the anæsthesia at this stage the patient strained vigorously, the whole of the sewn parts being distended with flatus without any escape, a fair test of the efficiency of the closure. The field of operation was

Digitized by Google

now carefully cleansed by sponging, without any irrigation of saline or other fluid. The operation lasted one hour and a half.

The following day, pulse 108, temperature 98·4°; no vomiting; tongue moist; complains of thirst; nothing by mouth; nutrient enemata.

April 14th, 1903.—Pulse 96; passing flatus; no distension; brandy and soda, calomel three one grain doses every hour. Took three ounces of chicken broth at a draught.

April 17th, 1903.—Bowels well moved by calomel purge. Suppuration and fœtor of the external wound requiring removal of superficial sutures.

May 10th.—On full diet; bowels open daily spontaneously without tenesmus. The pain has disappeared since the operation.

I heard from him July 24th, 1903. He had regained his normal weight, had no trouble from constipation, and was able to do light work as a miner.

Note.—The one obstacle to rapid healing of the wound was the suppuration of its superficial area by the colon bacilli, which manifested itself on the fifth day. Their escape occurred from the transverse colon during the longitudinal section, the bowel slipping a little from the hands of my assistant. Nothing escaped from the divided ileum, as the ends were immediately wrapped in gauze and were securely held by a nurse. I much prefer the somewhat insecure hand pressure for the divided bowel to the severe constriction of any clamp, notwithstanding Kocher's advice, and regretted the absence of a second assistant in the necessity for clamping the ascending colon.

Report of Dr. Bull, of the University of Melbourne.

May 1st, 1903.—I have made a microscopic examination of tumour of large intestine forwarded on the 28th ult. The condition is one of carcinoma of the columnar celled type. The growth appears to have originated in the region of the ileo-cæcal valve and has almost completely encircled the large gut for a distance of 2½ inches. The lower portion of the caput coli and the appendix have escaped infection.

In the main the growth has been of a nodular kind, projecting into the lumen of the gut, and causing great obstruction, especially at the junction of small and large intestine. In parts, however, growth has extended outwards through the muscular walls to the peritoneum, though the latter is still intact.

I examined several enlarged lymphatic glands in the neighbourhood of the cæcum. No definite indication of secondary infection was noticed microscopically.

FLEAS AND PLAGUE CONVECTION.

By J. S. C. Elkington, M.D., D.P.H., Board of Health, Melbourne.

In 1897, Dr. Simond, a French scientist working in India, succeeded in conveying plague to a mouse by injecting an emulsion of fleas which had been fed on a plague-infected animal. He communicated this result with certain others in an able paper to the annals of the Pasteur Institute,[1] but at that time the connection of suctorial insects with disease in human beings and in animals was not so fully worked out as it has been since in the case of malaria and yellow fever, and comparatively little attention was given to Simond's theories. In both of these diseases certain species of mosquitoes, Anopheles and Stegomya respectively, are now known to play the part of carriers of the infecting agent. At present much work is being done in this relation, and the conveyance of these and of certain other diseases by suctorial insects has been proved beyond all doubt, both for man and the lower animals. Is it not then readily believable that, given a disease which affects both man and the lower animals and a suctorial insect which feeds upon the blood of both, such insect may play a very important part in spreading the disease from one animal to another, from such animals to man, from man to man, and, perhaps, back again to animals, in an ever widening circle? In the light of our present knowledge such a hypothesis is at any rate admissible, and I will, with your permission, proceed to detail certain facts and conclusions which seem to me to point to fleas as playing an important part in the spread of plague. I trust, however, that you will acquit me beforehand of any attempt at dogmatising on the subject, or of ascribing to these insects the sole discredit of spreading plague. In rats, at any rate, the disease may be induced by feeding upon the fresh organs of plague—dead animals—under certain conditions, and there is at present no evidence to connect plague pneumonia in the human subject with the bites of infected fleas.

I desire, however, to place before you certain evidence which appears to show:—

1.—That the habits and distribution of certain species of fleas show a curious connection with certain phenomena attending outbreaks of plague in rat and man.

2.—That the habits of certain species of fleas are such as to render them exceedingly potent agents in the spread

Digitized by Google

from animal to animal of any disease which they may be physically capable of conveying.

3.—That the fleas infesting rats in India will bite human beings, that human fleas will bite rats, and that other fleas than Pulex irritans are found on man under natural conditions and will bite him.

4.—That certain fleas when fed upon plague-stricken animals are physically capable of carrying with them, and of conveying to healthy animals with fatal results, the plague bacillus.

Plague is essentially a *place* disease. In all its manifestations it displays a markedly local infectivity, as opposed to the sudden, simultaneous outbreak in a number of centres, of such a disease as cholera. The Indian Plague Commission has stated this peculiarity as follows:—"The universal experience of plague in India proves . . . that houses into which the infection of plague has been imported, whether by men or rats, are infective, this infectivity being so marked that many of the officers who have had most experience of the disease have come to the conclusion that the principal source of infection is, as would appear to hold true in the case of Yellow fever and possibly also of Typhus, to be found in the houses into which the infection of plague has been introduced. The general experience on this question is summed up in the expression current in India that plague is essentially a 'disease of locality.'"[2]

It is interesting in this connection to note that the conveyance of yellow fever by a suctorial insect—the Stegomya mosquito—was discovered after this was written. An immense amount of work has been done, especially in India, upon the power of survival of the plague bacillus in earth. The earthen floors of plague infected native houses should be especially liable to contain the organism were it capable of growing thereon; yet out of all the experiments which have been done in India, with a view to detecting it, the plague bacillus has never been found in such floors.[3] It has, furthermore, been proved that even when introduced in great quantities, under experimental condition, into soil, it is only recoverable for a few days afterwards.[4] We may then reasonably dismiss the soil as an unimportant factor in the causation of plague, just as it has been dismissed in the case of yellow fever and malaria, formerly regarded as typical "earth diseases," by the proof of their conveyance by certain species of mosquitoes.

This local infectivity, however, seems to be confined to particular kinds of homes. The dark, dirty, squalid, vermin-haunted house will form a focus of infection, once the disease is introduced by man or rat; while a clean, well-lit, well-ventilated abode may receive several cases from without, and the infection will not spread either to rats or to man. It is curious to note in this connection the experience of plague hospitals, of which I shall have something to say later on. It is very rare for an attendant in a modern plague hospital to be attacked; but in former days, as is shown by the testimony of contemporary writers, even a short visit to a pest-house was attended by great danger of infection. The modern hospital is especially built with a view to light, airiness and cleanliness; the ancient hospital seems to have combined all the sanitary offences of its day.

It is probable that plague is not spread among men, at least, by means of infected food. In certain instances this may occur in rats, but they showed a remarkable immunity when fed upon grossly infected grain by Dr. Gibson,[5] although all died when injected with some of the same plague culture which had been used to infect the corn on which they lived for a fortnight previously.

The infectivity of clothing under certain conditions is another marked feature of plague. Instances of this have been recorded for centuries, and a notable case of the kind is recorded in connection with Eyam, a Derbyshire village, which in 1666 was infected by a box of clothes sent from London, where the great plague was raging, to a local tailor, and lost 40 per cent. of its population in consequence.[6] Numerous modern instances of the kind were given before the Indian Plague Commission, and the incidence upon native washermen is very marked. The washermen also are the only servants attached to plague hospitals who seem to be especially liable to be attacked by the disease.[7]

That the infective power of clothing is not due to plague bacilli present in the clothing is testified to by the evidence given before the Indian Plague Commission, where numerous bacteriological examinations of the clothing of persons who had had plague or had died of plague failed to show any trace of the organism.[8]

It is admitted by all authorities that in at any rate an enormous majority of septicæmic and bubonic cases the entry of the plague bacillus is effected through the skin. The plague bacillus, then, is not found on clothing,

Digitized by Google

yet may be conveyed with clothes, and enters through a breach of the skin.[9] It has also been noticed that bales of textile fabrics have a curious tendency to convey plague and to be associated with recrudescence of the disease about the place where they have been stored.

There is in India a religious sect known as the Jains, one of whose most rigorously observed laws is the protection of all forms of animal life. Since they carry this law out to its extremest limits, they and their homes generally swarm with all kinds of vermin Otherwise they live under exactly the same conditions as other sects, but they show an extraordinary liability to plague and are especially smitten in every outbreak.[10]

Dr. Nuttall, of Cambridge, showed that bugs did not transmit plague among animals,[11] and mosquitoes are not known to convey the disease. With the exception of the flea, these insects are the chief suctorial companions of the Jains. Flies are not instrumental in conveying plague, and die rapidly when fed on plague-infected material.[12]

Returning again to the question of local infection, it has often been noticed in India that while the coolies of disinfecting gangs working in infected localities show no marked mortality so long as they sleep and rest elsewhere, sleeping or resting in such a locality is frequently followed by plague. Wherever possible such coolies are now protected by Haffkinisation, but while in India several instances of the kind mentioned above were detailed to me by European officials, both medical and laymen, who had been struck by this coincidence in unprotected persons working under them. This looks as if the infective quality present in infected localities showed a greater tendency to act during a quiescent period of the subject than during active movement.

Another curious phenomenon in relation to plague outbreaks is found in the relationship of rats and other small rodents to the disease. The study of past epidemics in Europe shows scarcely any reference to coincident mortality amongst these animals, and it is scarcely possible to believe that such a striking coincidence would have escaped mention by the numerous, and often acute, contemporaneous observers who have left us such vivid pictures of the Black Death of the 14th century, and more especially of the Great Plague of London in 1666. On the other hand, ancient records of the disease in the East *do* show such a mortality amongst rats and mice, and in the "Shastras," a holy book of the Hindus, persons are advised to desert their houses when the rats fall from the roof and die. A significant allusion is also to be found in the First Book of Samuel. This phenomenon, then, has been noticed in the East from a very early date, and it is also evident, as it is needless for me to remind you, in Australia and in South Africa at the present day. The domestic rats in the East, Australia and South Africa are similar to those of Europe, both in structure and habits. They all readily contract plague when infected experimentally, European and oversea rat alike. But, as was pointed out first, as far as Australia was concerned, by Dr. Tidswell, of Sydney, who has done much valuable work on this subject, the common rat flea of Australia is a very different insect from the rat flea of Europe. The rat fleas of India and of South Africa are closely similar to, if not identical with, those of Australia, and it is probable that the geographical distribution of the Pulex pallidus will be found to coincide with the distribution of plague outbreaks in which the rat may be accepted as an important factor in the infection of man, or man of the rat. On the other hand, little or no connection is obvious between rat and man where the Ceratophyllus is the common rat flea. These species differ widely in structure and also probably in habits. As may be seen by the diagrams, the Pulex pallidus resembles very closely the human flea, Pulex irritans, and possesses eyes. The Ceratophyllus faciatus, on the other hand, is a blind flea and differs widely in other structural respects.

To sum up, we have certain facts which seem to point in a particular direction. Plague does not apparently thrive in the soil, nor does it enter the body by the food, in human cases at least. It is probable that it may enter by the air passages in plague pneumonia, but this form of the disease is somewhat uncommon as compared to the bubonic and septicæmic forms. In these varieties it enters by the skin, and in the bubonic form it certainly enters in the lymphathic area drained by the first affected gland. Water plays no part in its dissemination, in India at any rate, and observation in Australia confirms this conclusion.[13]

Meteorological factors have not been shown to have any direct influence, but they have one significant indirect effect, since in many places in India the plague incidence has been noticed to rise markedly after a cold night or heavy dew, and especially after heavy rains during the dry season.[14] The natural result with a people mainly sleeping in the open air is to drive them into their houses and to keep them

Digitized by Google

there during the night. It shows marked local infectivity, but always chooses, broadly speaking, dark, squalid, vermin-hunted localities and not airy, well lit, clean places.

This local infectivity appears to have comparatively slight effect upon persons who live in an uninfected locality and who are moving about and working when in the infected locality, but a great effect upon those who rest or, especially, sleep in the infected locality. Clothing from plague patients is capable of conveying the disease, but the bacillus is not recoverable from clothing. And, lastly, a marked association of the rat with human plague epidemics has been noticed since remote periods in all parts of the world where the rat flea closely resembles the human flea, and no such association where the rat flea shows wide structural differences from the human flea. The human flea does appear to vary in different parts of the world.

This circumstantial evidence appears to incriminate the flea, but circumstantial evidence is not enough.

While in India I was able to make, partly in association with Captain Liston, I.M.S., some observations upon their habits which seemed to further confirm these insects in the rôle of plague distributors. The identification of different varieties was the first essential. The Hon. Charles Rothschild, who is the first authority upon the Siphonaptera, to which group fleas belong, is now, I believe, working out the classification of these insects, but there is at present very little available literature on the subject. The diagrams I show will, however, make it evident that there are certain structural differences which will enable an observer to identify a specimen well enough for all practical purposes under a low power of the microscope. These comprise the Pulex irritans, or human flea; the Pulex pallidus, or Indian rat flea, probably identical with the Australian and South African varieties; the Ceratophyllus faciatus, or European rat flea; and the Pulex canis, or dog flea of India, one of the Serraticeps, infesting dogs, cats and horses. The latter I instance chiefly to show the obvious differences in its structure as compared to the two first, the two thick chitinous "combs" on the head being very characteristic.

The working differences for identification between P. irritans and P. pallidus have been accentuated in the diagrams for the sake of clearness. It will be noticed that the claws differ, those of the P. irritans being long and shaped like scythes, those of the P. pallidus short and falciform. A more obvious difference is to be noticed in the genital apparatus of the males in the shape of the "movable finger," as it is called by Rothschild. A third point is in the length of the antipygidial bristles, which are relatively long and large in P. pallidus and short in P. irritans. The third variety of interest in this connection is Ceratophyllus faciatus, the European rat flea. It will be noticed that in this variety the body is exceedingly long, there is a "comb" extending over the back of the neck, and there are three antipygidial bristles on each side in the female. The male is said to have only one on each side. These diagrams represent only a profile view of each insect; there are, of course, similar bristles on the opposite side.

The domicile of the flea is in the sleeping place of its host, where it lives in the latter's bedding material, and breeds in adjacent cracks and crannies. It visits its host several times a day for feeding purposes, and its presence while the latter is moving about outside is apparently more or less accidental, it having been carried away while feeding. Sick rats, however, are found to carry more fleas than when healthy, probably because they do not attempt to remove them, a toilet operation at which they are very expert when in good health.[15] Fleas show a marked objection to strong light, and the Indian rat flea at any rate often leaves its host if the latter is kept in sunlight for any time, apparently seeking a place for concealment. From some observations made upon rat fleas it appears that strong light is actually fatal to them in a short time, at least under artificial conditions. They may be starved for a week without dying, but 10 days of deprivation of food, in a test-tube with free air supply, killed all the specimens experimented upon. It is probable that under natural conditions they will survive for very much longer periods without food.

While showing a preference for the species of mammal with which they are usually associated, the four varieties considered are catholic in their tastes when hungry. Under experimental conditions rat fleas will feed upon human beings, and human fleas on rats, while the Pulex serraticeps is fairly frequently found on human beings in India, and will also bite rats experimentally when starved. Four rat fleas let loose, after 24 hours' starvation, upon a European, bit vigorously, and remained in his clothes for several hours. It has been asserted by Professor Galli Valerio that rat fleas will not bite human beings, but my own experience with Pulex pallidus shows that this variety will do so readily if starved for a while. One specimen of Ceratophyllus faciatus, which was probably the flea he used, was induced to bite

Digitized by Google

after long starvation, but seemed to do so without much eagerness, subsequently feeding with great avidity on a young rat. Two specimens of Pulex pallidus were found amongst 70 specimens caught upon themselves by natives, and brought for examination. One had been captured in the act of feeding, according to the statement of my servant, who caught it—a reliable man in such matters. These instances appear to show that Pulex pallidus will feed upon man under natural conditions as well as under experimental ones. No specimen of Pulex irritans was obtained from a rat during this time.

As I mentioned at the beginning of this paper, Dr. Simond succeeded in conveying plague to a mouse by injecting an emulsion of fleas which had been fed upon a plague-infected mouse. Three mice were thus infected. All died, but only in one was it possible to find the plague bacillus after death. It is needless to say that this is, of course, absolutely necessary for purposes of verification, and must be effected in all cases in which death is ascribed to plague in experimental work. This experiment was repeated successfully by Dr. Tidswell, in Sydney, thus confirming Simond's result.[16]

It was again repeated in three instances upon rats, up to 12 hours after the fleas had had their infected meal. There is thus no reasonable doubt that fleas are capable of carrying the plague bacillus about with them for some time after feeding on infected blood.

It was then necessary to find out, as far as possible, the manner in which the flea carried the bacillus, and whether feeding only would convey the infection from one rat to another. The technical difficulties were considerable, and a great deal of experiment was required before a satisfactory means was obtained of insuring the captivity of such a small and active insect while feeding.

Fleas were then fed upon experimentally infected rats whose bodies or posteriors had been shaved to enable the operator to note whether the insect bit or not, and to let it bite easily. In all cases the rat used was subsequently examined post mortem, and the existence of plague bacilli in the spleen and blood was verified both by the microscope and by cultures. In several instances the bacillus was also looked for and found in blood taken from near the site of the flea-bite, immediately after feeding. The fleas were then kept in a dark drawer, still in the feeding tube, for varying periods, after which they were again fed on healthy young rats, selected for their vigour and health. These were then placed in special cages under conditions excluding, as far as possible, all chance of outside infection. Upon their death—since I may say that nearly all died of plague, despite the presence of check rats kept in the same room in flea-proof cages which remained healthy—they were examined as the feeder rat had been. The results were most successful, and I have records of four instances in which I was able to carry out this method of infection. Captain Liston also was successful in several cases. The longest period at which infection succeeded was 72 hours, but for reasons which I will subsequently refer to it is probable that the infective period lasts considerably longer in some instances at least. The fleas used in my cases were in five cases the Pulex pallidus; in one—and this is very significant—the Pulex irritans or human flea.

Attempts were then made to convey the disease from human beings to rats. Two instances were successful, the period from the first feeding being eight hours. The case was a "septicæmic" one, with comparatively numerous bacilli in the blood. The fleas used were three P. pallidus and one P. irritans, two in a tube. The P. irritans was only discerned to be so on examination afterwards, but all the fleas bit both man and rats. Both rats died of plague, one on the fourth the other on the sixth day. It was not ascertained which had been bitten from the tube in which the irritans was, though this point is not important.

The fleas themselves do not seem to be affected by the presence of the bacillus in the blood on which they are fed, thriving upon it as well as upon ordinary blood. This peculiarity is not shared by flies which die when fed on plague-infected material.[17]

By an ingenious system of preparation devised by Captain Liston, it was found possible to cut the insects into sections, both transversely and longitudinally. These sections were stained and mounted in the usual manner, and it was found that the bacilli after a meal of infected blood were, for the greater part, retained in a curious gizzard-like structure between the œsophagus and the stomach, the blood corpuscles after being broken up passing on into the latter organ through a valve resembling a fish trap, which prevents regurgitation. Check specimens fed upon healthy rats showed no bacilli in this "straining organ," as it may be called, whereas in fleas fed upon plague-stricken rats large numbers of bacilli were seen here, microscopically resembling the plague organism. These bacilli appeared to remain in the "straining organ" after the blood had been digested in the stomach, and were found up to 84 hours after a meal. It is probable that they remain for a much longer period.

Digitized by Google

The flea certainly injects some kind of salivary or other secretion when it bites, possibly to soften the blood corpuscles in order to draw them easily up the proboscideal canal. This seems to be the case from the amount of irritation which occurs about the bite and which is considerably more than the normal physiological reaction which might be expected to be produced from such a tiny puncture. The mosquito certainly does this, and the mosquito conveys several diseases to man and the lower animals. During my stay neither Captain Liston nor myself was able to discover any salivary glands in the fleas examined, but these are stated by European observers to exist, and the reaction mentioned seems to confirm this statement. If so, these glands must open into the upper part of the alimentary canal, and, as there is no apparatus to prevent the passage of bacilli from the "straining organ" to any part above the latter structure, it is conceivable that they may enter with the injected secretion. The plague bacillus is, of course, non-motile, but the movements of the muscular wall of the organ in which they are found may possibly force them towards the entrance far enough to be carried on by the salivary flow.

A peculiarity of the rat as compared with the human subject in relation to plague infection is that plague bacilli appear in considerable numbers in its blood for several hours before death, whereas the human being only shows this phenomenon for a comparatively short time, and then in much smaller quantity as a rule. However, cases of septicæmic plague in the human subject may show a condition somewhat resembling that of the rat in this respect. This peculiarity places the rat in an even more dangerous light than it has previously been regarded when considered in relation with the geographical distribution of Pulex pallidus. A creature with its blood swarming with active bacilli, infested by a parasite which has no objection to biting mankind if dissociated from its rat host by any accident for a few hours, and which is capable of conveying plague from one rat to another after periods extending into days, may well be looked upon as an imminent danger. Added to this is the fact that the human flea, almost identical in structure and in habits, will feed upon such rats, under artificial conditions at any rate, if hungry, as well as upon human plague patients in whose blood the bacillus may be present. This appears to explain the well-known danger connected with the habit of the plague-stricken rat in often coming out into daylight to die.

I have little more to say, gentlemen, beyond telling you that Captain Liston is working on the subject at Bombay, and I have no doubt that many facts in relation to the connection of fleas with plague will be forthcoming from this most capable observer before long. Dr. Tidswell, I gather, is also working in Sydney upon the same subject. It may seem to some of those who have not had to deal practically with this most dreadful disease a trifle ludicrous to ascribe such very dire powers to such a familiar and proverbial insect as the flea. As I asked you earlier to hold me free of any attempt at dogmatism, so do I ask you now, whether it is not more reasonable to believe that plague infection is carried, in many cases at least, by an insect which may be taken as proved capable of carrying the plague bacillus, and which feeds at the spots indicated by the obvious infection of the first glands which take up the lymph from such spots—an insect, moreover, which is capable of conveying plague from one animal to another, and, therefore, by analogy from animal to or from man to man—than to ascribe it to a problematical scratch infected by possible dust in which the plague bacillus is known to rapidly disappear even under the most favourable artificial conditions, or to clothing upon which it is not discernible by the most rigorous examination?

Every year adds to the list of diseases in which infection is spread by insects either among men or animals; and the facts which I have set before you in this paper will, I think, enable anyone, who takes the trouble to compare, to explain in a more reasonable and scientific way the vagaries of a plague outbreak than can be done by any of the numerous theories, meteorological and other, which have been from time to time advanced since the days of Guy de Chauliac and probably were advanced before his day. It was obviously impossible to carry experiment to the final stage of infecting man from man or rat, but it is but reasonable from analogy to suppose that wherever septicæmic cases occur (and I need not remind you that probably all fatal cases of plague have bacilli in their blood before death) there may fleas carry the disease to the healthy.

[The diagrams were exhibited at the meeting.]

REFERENCES.—(1) Annales de l'Institut Pasteur, October, 1898; (2) Indian Plague Commission Report, par. 221, p. 101; (3) Ibid., par. 223, p. 102; (4) Ibid.; (5) Ibid., p. 74, par. 185; (6) Public Health, by William A. Guy, M.B. (Cantab.), F.R.S., p. 93; (7) Captain Glen Liston, M.D. (Glasgow), I.M.S., vol. VIII., Bombay Med. and Phys. Society's Transactions; (8) I.P.C. Report, p. 104, par. 226; (9) Ibid., p. 70, par. 175; (10) Ibid., par. 187, p. 75; (11) Ibid., p. 77, par. 189; (12) Ibid., p. 129, par. 283; (13) Ibid., p. 130, par. 286; (14) Ibid., p. 160, par. 335; (15) Simond; (16) report by Frank Tidswell, M.B. (Syd.), D.P.H. (Camb.), appended to report on the outbreak of plague in Sydney in 1900 by the Chief Medical Officer of the Government of New South Wales; (17) Indian Plague Commission Report (ante).

(Read before the Victorian Branch of the British Medical Association.)

Digitized by Google

MACROGLOSSIA.

By M. R. Jay, M.R.C.S., L.R.C.P., Adelaide.

HYPERTROPHY of the tongue, or macroglossia, is not of common occurrence in Australia, and as I have recently met with a case where a new line of treatment was successful, I thought it worth recording.

Macroglossia is in the majority of cases congenital, and even in the acquired cases the disease almost always appears at an early age. We are indebted to Virchow for an accurate pathological description of the disease, which consists mainly of a hypertrophy of the interstitial connective tissue of the tongue, in which are found greatly dilated lymphatic vessels, and spaces filled with lymphoid cells. This condition is so well marked that it has given rise to the name "Lymphangeioma Cavernosum." The pathological condition present in macroglossia resembles very closely elephantiasis.

In the great majority of cases the anterior two-thirds of the tongue arising from the tuberculum impar is the part affected, but in the case I am about to relate the whole of the organ appeared to be equally affected. It is generally acknowledged that the seat of the lymphatic obstruction is at the base of the tongue, though the cause of obstruction is obscure. These patients are frequently subject to epileptiform attacks.

I first saw Mrs. M.'s child when he was five months old; up to this date he had been under the treatment of the medical man who attended the confinement.

Mr. and Mrs. M. were free from any constitutional ailments, except there was an uncertain history of a chancre in Mr. M.'s case, without any secondary manifestations of syphilis, nine years prior to the child's birth.

The infant was stunted in growth, with a vacant look; tongue greatly enlarged, lolling out of the mouth and hanging down as low as the chin; with constant dribbling of saliva, purplish in colour, upper surface dry and fissured, frequently covered with a thick coating of epithelium, which could be easily removed; veins on under surface large, tortuous and unevenly dilated. The abdomen was greatly distended, superficial veins enlarged, umbilical hernia, and prolapse of rectum. Skin of body and limbs markedly dry. Respiration nasal, accompanied by a frequent sucking noise.

On endeavouring to make an examination of the back of tongue and throat, the child became black in the face and ceased breathing, accompanied with convulsive twitchings of limbs, the blood-vessels of the tongue becoming much engorged; this was followed by severe gasping efforts to breathe, with a gradual emptying of the vessels of the tongue and a slow return to consciousness, leaving a greyish, livid condition round the mouth for an hour or two after the attack.

Pulling out the tongue, lifting forward the angles of the lower jaw, altering the child's position, etc., seemed to make no difference in the duration of the attacks, which occurred sometimes only once in the 24 hours, and at other times much more frequently. There was very great trouble to get the bowels to act, and any straining appeared to cause a fit such as I have described.

The treatment advocated by all authorities in these cases has been the removal of a V-shaped portion of the organ with its apex directed backwards, or simply amputation of the prolapsed portion by knife or ecraseur. The bleeding, as a rule, is easily controlled, though the safest and most satisfactory method is primary ligature of the lingual arteries.

I continued to treat the child on the same lines as the previous medical attendant, giving bromides and belladonna to check the attacks, and frequent small doses of hyd. c. cret. I afterwards tried hydriodic acid, and as there was great difficulty in giving the child medicine I used inunction of ung. hydrarg.

I did not think the ordinary method of treatment by operation suitable in this case, because the hypertrophic condition affected the base of the tongue equally with the anterior half; so much so, in fact, that it was a matter of impossibility to obtain a glimpse of the throat by pulling out or depressing the tongue.

No form of treatment so far adopted had caused the slightest improvement in the child's condition, and the mother and grandmother, who were nursing the child, were worn out with constant watching day and night, fearing the child might choke at any moment during an attack.

Professor Watson now saw the child with me, and from the greatly distended abdomen, dilated superficial vessels, etc., came to the conclusion that, in addition to the macroglossia, there was a congenital stenosis of pylorus, and advocated immediate operation to relieve this, otherwise giving the child only a few weeks to live. No amount of persuasion, however, would induce the mother to allow of any operative procedure.

After carefully considering the child's condition, being mainly influenced by the general want of development (at nine months he resembled a child of three months), his mental condition, the dryness of his skin, in fact, his general resemblance to a cretin, I determined

Digitized by Google

to try the effect of thyroid gland treatment. I began by giving him one grain daily in his food, gradually increasing the amount to four grains.

Symptoms of improvement rapidly showed themselves, the bowels became much less distended and acted naturally, the prolapse of rectum ceased, and in less than two months the tongue had so diminished that it no longer protruded from the mouth. Swallowing and breathing had become practically normal in character, and no fit of any kind had taken place from a fortnight after the commencement of the treatment.

The child began to take notice of objects and endeavour to lay hands on anything in reach. Prior to this nothing, however attractive, would induce him to look at or attempt to take hold of the object offered; in other words, in a few weeks he developed from a sickly three months' old infant to an ordinary well-developed child of about a year's age.

Since then I have, with a *confrère's* assistance, given the child chloroform and circumcised him. The macroglossia has completely disappeared, the appearance of the tongue presenting nothing abnormal; several teeth have appeared, and respiration and deglutition are quite normal.

Thyroid gland is usually administered in cases of myxœdema, of arrested growth, to assist in the development of backward children, in various skin complaints, especially of a sequinous nature, in cretinism, goitre, obesity, syphilis, as a galactagogue, and to arrest hæmorrhage in uterine disorders.

I have not been able to find any record of its use in a case similar to the one I have just described, and, in my opinion, it opens up further therapeutic uses for this valuable and little understood drug.

I should much like to test its efficiency in the after-treatment of cases of elephantiasis, and I would suggest to members of this Society the possibility of its advantageous use in cases of tonsillar hypertrophy, with post-nasal growths, with the customary accompanying symptoms of arrested physical and mental development.

(Read before the South Australian Branch of the British Medical Association.)

HÆMORRHAGE IN THE NEWLY-BORN.

By E. Champion, M.B., Ch.B., Hon. Physician Ballarat Hospital, Victoria.

It is not my intention to-night to try and solve the exact cause of spontaneous hæmorrhage in the recently-born child, but to try and give you a correct history of two cases which recently came under my notice.

On the 19th June Mrs. M. was delivered of a female child. Labour was precipitate. The child was well-formed and properly developed, but face was noticed to be very slightly cyanosed after bathing. The bowels acted twice during the first 24 hours, and the child seemed quite comfortable, and slept well. On the second day, when the bowels acted, a large hæmorrhage occurred, the blood soaking through serviettes and new flannelette night-dress on to nurse's apron. It was fluid principally, and dark red in colour, but there were also a few long dark clots. The nurse applied a cold water pack to the abdomen, and noticed that the child became rather blue about the face, and vomited a quantity of dark fluid. On my arrival (about half an hour after onset) I found the child very anæmic, with a dusky hue about the face, which did not disappear on pressure; there were one or two minute petechial spots scattered about trunk and limbs, there was some dark red blood oozing from the anus, and, on movement, the child vomited a dark thick fluid. The treatment adopted was absolute rest, cold water in sips by the mouth, and min. v. of a 1 in 20,000 solution of adrenalin chloride every two hours, which was subsequently increased to every half-hour, and later on still to 1 in 10,000. The hæmorrhage from the bowel and mouth continued for three days, not stopping suddenly, but the motions becoming gradually less frequent and darker in colour, until the blood ceased. At first almost everything given by mouth was rejected, even the cold water, and each time before the bowels acted the child would moan as if in pain. When hæmorrhage ceased the child was exceedingly anæmic—the lips, gums and palpebral conjunctiva being perfectly white. As soon as there appeared to be a cessation in the hæmorrhage and vomiting the child was put to the breast and took it well, the quantity allowed at first being very small and increased gradually. Two days after the hæmorrhage ceased there appeared a slight swelling in the right submaxillary region, which was hard to the touch and very painful. This improved at first, but subsequently spread to both parotid regions, which became very painful and swollen, the child screaming when touched or its head moved. The motions, which had become quite natural, now became greenish in colour, although they were not offensive nor increased in frequency; but the child now became unable to take the breast and died on 28th June, *i.e.*, nine days after birth and five days after all hæmorrhage had ceased.

This was the third confinement; both children previously born were healthy. There was no history of hæmophilia on either parent's side.

Digitized by Google

Whilst carrying, had some trouble with right leg on account of varicose veins. According to my calculations labour was nine days too soon, *i.e.*, child died the day I had told mother she would be confined. A few days before birth of child mother became very angry with one of the servants.

On the 3rd July I was asked to see the infant child of Mrs. D., *æt.* 32, which was born on the 1st instant. The baby had just been bathed, and the nurse was putting the binder on when a quantity of dark-looking blood ran out of the baby's mouth, the child lying at the time on its side on the nurse's lap, and then there came a spurt of blood from the anus, principally fluid and dark red in colour, but containing a few clots also. From the mouth blood continued to come all the day, and from the bowels it continued until the following morning, when it ceased altogether, and the child was quite well when I saw it on July 29th. Treatment: Cold water and adrenalin chloride, 1 in 10,000, min. v. 2½ hours. This child was undoubtedly premature, being born at the eighth month. Mother had previously three children. Last seven years before. All well. No hæmorrhages or anything like it in family. Also had trouble with varicose veins in one leg whilst carrying. On the morning before hæmorrhage child suddenly became cyanosed and appeared to choke. Atelectasis. Cord did not separate till the 12th day.

In neither case was there any bleeding from umbilicus.

The comparative infrequency of these cases made me feel that they were worth recording.

(Read before the Ballarat Branch of the British Medical Association.)

TWO ACUTE CASES OF TETANUS TREATED WITH ANTITOXIN—RECOVERY.

By R. R. S. Mackinnon, M.B., Ch.M. (Syd.), North Sydney, N.S.W.

In view of the rarity of recovery from tetanus in cases where the incubation period has been short, I think the following notes on two cases worthy of record:—

Case 1.

W.H.P., *æt.* 39 years, male. I first saw the patient on September 30th, when he complained of acute paroxysmal pains in the abdomen and chest, with inability to open mouth. On examination a state of tetanus was readily diagnosed. There was a suppurating wound on the dorsum of right forefinger. In the discharge from the wound tetanus bacilli were demonstrated microscopically. There was no other wound on body.

Previous History.—On September 22nd, eight days before I saw him, the patient contracted the wound. He felt no untoward symptoms until the morning of the 25th, when he awoke with feelings of tightness in chest and of stiffness of the jaws and neck. During the 26th, 27th, 28th and 29th the symptoms progressed from bad to worse, when the patient was brought to me.

On examination the muscles exhibiting most tension were the recti abdominis, the muscles of neck and jaw (the teeth being so closely approximated as to prevent protrusion of the tongue at any time).

The least touch to the body would elicit a severe spasm, even the raising of the shirt being sufficient to excite a paroxysm. The wound was curetted, washed with perchloride, and a pad of 1 in 50 carbolic applied.

I injected 10 c.c. of antitetanus serum. After four hours had elapsed without apparent change in condition, the spasms became more severe and more frequent, occurring every five or ten minutes. I injected gr. ¼ morphia hypodermically, giving the patient an hour's rest from paroxysms, but not inducing sleep. The paroxysms then returned, and opisthotonos became marked, the arms and legs sharing in the spasms; temperature, 102·5°.

I injected another ¼-grain of morphia, with a soothing effect, the paroxysms having longer intervals between them.

October 1.—Paroxysms less frequent; muscles of abdomen, neck and jaws still tense; temperature, 101·5°. Towards evening the paroxysms again increased in frequency and severity, and I injected another 10 c.c. of antitoxin. For two hours the paroxysms were very frequent, when $\frac{1}{100}$ gr. hyoscine was injected hypodermically, with soothing result. The patient was then put on chloral and bromide every three hours, and passed a fair night, having short intervals of sleep.

October 2. — Patient evidently worse; paroxysms more frequent, and opisthotonos well marked. Hyoscine was again injected with soothing effect, but towards evening the paroxysms became so violent and frequent that I gave inhalations of chloroform for two hours, with the result that the patient eventually went into a sleep lasting four hours. He awoke in an easier state (this in contradiction of the dictum that administration of chloroform tends to aggravate the tetanic state after its present effects have worn off).

October 3.—Paroxysms frequent all day, but not so violent; at night injected 10 c.c. of antitoxin and ¼ grain morphia.

October 4.—Violent all day and no sleep; spasms very frequent; unable to swallow

Digitized by Google

anything. I gave a hypodermic of morphia, gr. ½, and at the evening found the patient acutely and violently maniacal. He remained in this state for 48 hours, during which period I injected 10 c.c. of antitoxin. When he regained his senses there was an evident improvement, the spasms being less frequent and of much shorter duration. From this on the patient steadily improved, the last parts to loose their state of tension being the abdominal muscles. Discharged cured on November 24th, after some weeks' convalescence.

CASE 2.

P.T., *æt.* 9 years (male). This case, being in many points a similar one to the first, will be dealt with more briefly, the most important point, in my opinion, being the very short incubation period.

January 1, 1903.—On examination, mouth could not be opened more than ½ inch; muscles of jaw and muscles of neck tense. On the dorsal aspect of left foot was a suppurating broken blister from a scald. This scald was contracted 36 hours prior to my seeing the case, and the boy allowed to go barefooted immediately after without treatment of the blister. A careful search was made for any other wound or source of infection, but none found. In the discharge from the wound tetanus bacilli were found. The wound was treated in a similar manner to that of Case 1, and 5 c.c. of antitoxin injected.

January 2.—Jaw and neck still tense; recti rigid; convulsions becoming frequent. At night, spasms more frequent and severe, and a tendency to opisthotonos; spasms induced by slightest stimulus. Injected another 5 c.c. antitoxin. Later.—Spasms more active.

January 3, 5 a.m.—Had no sleep during night; frequent spasms, with opisthotonos. *10 a.m.:* Somewhat easier; chloral and bromide given every four hours. *At night:* Somewhat easier.

January 4.—Had some refreshing sleeps; recti and muscles of neck and jaws still rigid; injected 5 c.c. antitoxin.

January 5.—Morning: Spasms frequent and severe, but short in duration. *Evening:* Only eleven spasms in eight hours.

January 6.—Injected 5 c.c. antitoxin.

January 7.—Paroxysms were frequent; sleepless.

January 8.—Injected 5 c.c. antitoxin; the condition improved.

From this on the patient steadily improved, to be eventually cured.

It is a noticeable fact that during the last few months cases of tetanus have been reported from various parts of the State. Why these cases should come in a bunch is a matter worthy of inquiry, considering the fact that the bacilli are ever present. I have made inquiries from sheep-breeders, and have elicited the fact that occasionally (after seasons of immunity) lamb-marking produces a high percentage of "lockjaw" in the lambs without apparent cause; and this high percentage is noticeable at the same times in other yards in the district that have no possible chance of contact one with the other. The recent cases of tetanus have occurred shortly after rain which has followed a lengthy drought, and I suggest the possibility of the virulence of the bacillus being ignited by the presence of the moisture. I might add that since treating the above-recorded cases I have had another case of tetanus of the "benign" character, and these three cases coming so close together are the only cases I have met with in this district during a practice of seven years.

P.S.—Since writing the above cases it has come to my knowledge that Yallaroi Station in this district has been forced to stop its lamb-marking a fortnight ago, owing to the high percentage of tetanus in the lambs operated upon. This is the first season for many years that tetanus has made its appearance there.

CLINICAL AND PATHOLOGICAL NOTES.

A CASE OF DIPHTHERITIC INTERTRIGO.

SOME time ago—*Hermes Medical Supplement*, December 4th, 1895—I reported a case of cutaneous diphtheria, involving the fold of the neck and the fold of one groin, in a fat and otherwise healthy child, aged six months. A similar case has recently come under my notice, and as I have never seen any reference to this form of diptheria I thought a note of it might prove interesting to the readers of the *Australasian Medical Gazette*. A well-nourished girl, aged 10 months, was brought to the Children's Hospital outpatient department suffering from inflamed groins, said to be one of weeks' duration. On examination there proved to be in the folds of both groins a large patch of what looked like severe intertrigo. The greater part of the sore was, however, covered with a whitish grey membrane. A portion of this membrane was peeled off with a pair of forceps, and as it looked exactly like diphtheria membrane, or rather false membrane, a swabbing was taken from the surface on one side and a serum tube inoculated. After 18 hours' incubation an almost pure culture of the diphtheria bacillus was obtained. The child was given antitoxin, and allowed to

Digitized by Google

be taken home. It should be said that the throat was quite clear, and that the child had no general symptoms, in spite of the large surface involved.

W. F. LITCHFIELD, M.B. (SYD.)
Sydney.

MEASLES WITH NEPHRITIS.

L.K., aged 1 year 9 months, was brought to me on August 29th, 1902, with a two weeks' history of general increasing swelling, anorexia, stertor and scanty urine. There was general anasarca, with fluid in both sides of the thorax and in the peritoneal cavity.

Temp., 98; *pulse*, 90; *heart*, normal; *urine*, scanty, pale, very albuminous.

Treatment.—Mag. sulph. and digitalis. Hot pack, milk and barley water diet.

The dropsy began to go away at once, but on September 1, 1902, the temperature began to rise and coryza and cough came on. On September 9, 1902, a typical measles rash and temp. was 103·5. Hot baths were then given daily, the bowels kept open by fluid magnesia, and a placebo was ordered.

The dropsy, rash and feverishness gradually went away, and on September 9th, 1902, the urine was abundant, free from albumen, and the child had a good appetite.

A few days later the child went to his home, 17 miles away, apparently quite well. A week later the urine was still abundant and free from albumen.

On October 19th, 1902, the child was brought back to me with a three weeks' history of "cold in head" and repeated attacks of nettle rash. During the last four days there had been dropsy everywhere, which started with "bunged eyes."

The child had dropsy everywhere except in face, was very irritable, and there was some urticaria in right axilla. *Pulse*, 108; *resp.*, 35. The child was able to walk, but soon got dyspnœa on doing so. *Urine* scanty and markedly albuminous.

The child never lost the dropsy or the albuminuria, although at times both decreased very much.

On October 26th, 1902, *urine* turbid with pale urates, acid, 1040, very albuminous; a few blood and granular casts found.

Later on the urticaria got worse, attacks of vomiting came on, and laryngeal stridor appeared.

The child afterwards passed out of my care into that of Dr. Proctor, of Mount Pleasant, and he has kindly sent me the following notes of the case:—

"When the parents brought the child to me there was marked œdema of lower extremities, marked ascites; face and arms also swollen. Temp., 101·4°; pulse, 102; urine very scanty, sp. gr. 1015, and loaded with albumin; reaction acid.

"I placed the patient on a mixture containing liq. strych., tr. digit., liq. amm. acet. and spt. ether nit.; also, 1 gr. calomel three times daily, and a morning dose of mag. sulph.

"The child seemed to improve for a day or two and then gradually got worse. Urine would not increase, nor could I produce any action of the skin by hot baths, etc. Ascites was very marked a day or two before death. I had thoughts of tapping, but the low state of the little patient deterred me."

The temperature gradually rose from 101·4° to 103°, and the child died on December 17th, 1902. There was no post-mortem.

Remarks.—When the child was first brought to me I thought his condition very desperate. When measles appeared I thought there was no hope for him; therefore I was very much surprised and gratified when he made such a rapid recovery, and was equally surprised to find how quickly he got ill again. My prognosis during the first attack was that he would die, but he got well. When he got a second attack I said I thought he would get over that, but he died.

EDWARD E. MOULE, M.B.
Mannum, S.A.

REVIEWS AND NOTICES OF BOOKS.

DISEASES OF THE PANCREAS AND THEIR SURGICAL TREATMENT. By A. W. Mayo Robson, F.R.C.S. (Eng.), and B. G. A. Moynihan, M.S. and F.R.C.S. (Eng., Philadelphia: W. B. Saunders & Co. Melbourne: Jas. Little.

At the present time, when there exists so profuse an output of medical books, the majority of which adding little to our common stock of knowledge and supplying no long felt want, it is pleasant to find a work so clear, so succinct and so necessary as this, which is the joint production of Mr. Mayo Robson and Mr. Moynihan, of Leeds. Their reputation and previous writings made us, indeed, expect something worthy of study in this new field; that expectation has been fully realised.

The subject is one in which medicine and surgery freely overlap, and the physician and surgeon alike will find suggestive information and practical wisdom in every chapter of this most convincing monograph. It must, we think, be agreed that our knowledge of diseases of the pancreas has till very recently been of the most vague. Witness in proof of this the poor hesitating meagre information on the subject, even in the most recent text-books. To American and foreign writers chiefly do we owe much valuable light on this obscure subject. The authors of the book before us have sifted and crystallised into useful shape all that is most practical and definite in the writings of these

Digitized by Google

investigators, and have amplified and made serviceable this knowledge by the publication of their own experiences in the diagnosis and treatment of pancreatic disease. In the opening chapter a short but instructive account of the anatomy of the gland is given. Special prominence, in view of their pathological and clinical importance, is assigned to those portions of the pancreas which are now called "the islands of Langerhans." This section concludes with a very practical statement of the methods of obtaining access to the gland for purposes of operation—four in number. In some cases, if for no other reason than facility in drainage, a posterior route has certain advantages. The incision described begins at the top of the 12th rib, and runs obliquely forwards towards the umbilicus. A *resumé* next follows of recent experimental work on the pancreas, with an excellent account of pancreatic diabetes in man. From the observations of Opie and others it is at least very probable that the internal secretion of the pancreas originates in the "islands of Langerhans," and further, that it is necessary for the production of this form of diabetes, that these structures should be involved in a process sufficiently severe to destroy their functional activity. No less than 118 pages are rightly given to pancreatitis in its various forms. In our judgment they present this difficult subject in the clearest manner yet brought before the profession. No one who studies the clinical examples used to illustrate the various conditions described can now fail to correctly interpret cases, apparently misunderstood in the past, under the better light shed on pancreatic lesions by these two Leeds surgeons. This remark may well apply to both acute cases, suggestive of a perforated viscus or an obstructed bowel, or to more chronic conditions, where chololithiasis or a new growth were the possibilities which bulked largely in the differential diagnosis. So also does an increased knowledge of pancreatitis make an explanation possible of those curious recoveries of cases diagnosed, with the abdomen open, as inoperable malignant disease. It is, however, consoling to think that if in these cases of unexpected recovery our diagnosis and prognosis were in error, yet, as is well pointed out, the treatment of chronic pancreatitis and chololithiasis are so surgically similar in the instances in which these two maladies and malignant disease of the pancreas resemble one another that no great harm results from a temporary error of diagnosis.

The excellent account of the varieties of pancreatic cysts, true and false, should be read by all concerned in operative work within the abdomen. The relation of pseudo-cysts to the cavity of the lesser bag of the peritoneum is especially worthy of perusal. In the diagnosis of an obstruction to the pancreatic duct, or loss of pancreatic secretion from any cause, attention is called to the "Signe de Sahli." Under normal conditions salol, when given by the mouth, is decomposed in the duodenum into carbolic and salicylic acids, which may be recognised in the urine. The failure to find this reaction indicates an absence of the pancreatic juice. The above may seem a small matter, nevertheless it is a fact worth remembering, and this book abounds in such shrewd practical points, not the least of which is the best means of exposing the deeper parts about the portal fissure. In the space allotted to a review it is impossible to do adequate justice to the value of this good work. The printing and general style leave nothing to be desired, though, perhaps, the book is too heavy (in avoirdupois). It is, no doubt, an ill task to pick out spots in the sun, yet we must be pardoned if we here raise a protest against the noxious custom of multiplying titles and offices after the names of authors. "Good wine needs no bush" is a trite but true saying, and surely Mayo Robson, of Leeds, does not add to the confidence we repose in his written opinions by allowing a multiplicity of posts held to disfigure the title page of his treatise. Nor does the excellent work and reputation of Mr. Moynihan become better because we are told that he is a member of the staffs of the Skipton and Mirfield Hospitals. This, of course, is a trifling fault, but it may well be omitted in subsequent editions. R.S.S.

TRANSACTIONS OF THE AMERICAN DERMATOLOGICAL ASSOCIATION AT ITS 26TH ANNUAL MEETING, AT BOSTON, SEPTEMBER, 1902. Chicago: P. F. Pettibone & Co. 1903.

This volume contains a large number of interesting papers on dermatological subjects, with well reported discussions upon them. Some of the papers are very well illustrated by plates, showing the macroscopic and microscopic features of the disease under consideration. Of special interest may be noted the papers on the "Dermatoses Occurring in Exophthalmic Goitre," by Drs. Hyde and McEwen; and the "Dermatoses of the Insane," by Dr. Wingfield. Considerable interest attaches to the papers dealing with the therapeutics of the X-rays, some of the writers speaking with considerable reserve upon the value of the indiscriminate use of these rays, others speaking in the highest terms of the use of this therapeutic measure in the treatment of cutaneous cancers. The volume also contains the President's address, which summarises the history and progress of the association, and the large amount of work accomplished by its members; also the report of the committee on statistics, and a list of the publications of the members of the Association.

PUBLIC HEALTH LABORATORY WORK. By H. R. Kenwood, M.B., D.P.H., F.C.S. Third edition. London: H. K. Lewis, Gower-street. 1903. Price, 10s 6d.

Kenwood's "Public Health Laboratory Work" has been the justly-valued laboratory companion of many generations of students of hygiene. The present edition well maintains the reputation of the work. The book has been increased in size to the extent of over 100 pages, the greater part of the increment being due to the inclusion of a useful and up-to-date section on practical bacteriological methods by Dr. W. G. Savage. The general scheme of the book, other than the bacteriological portion, is unchanged from that of the previous edition, but in some instances processes formerly given have been replaced by others. Under the head of water analysis the number of examples given of water analyses has been largely increased. A very wise addition, as nothing impresses on the student the knowledge necessary for forming an opinion on the quality of a given water so well as the careful comparison of a number of standard examples. The section on sewage analysis has been extended by the inclusion of a detailed account of Kjeldahl's process for the estimation of organic nitrogen. The illustrations are numerous and useful. W.G.A.

"THE SOUTH AFRICAN MEDICAL RECORD," a monthly journal devoted to the interests of the medical profession in South Africa, has been added to our list of exchanges. The fourth number of this publication contains an article on leprosy and its treatment by chaulmoogra oil, on carcinoma in Angora goats, as well as reports of cases and meetings of the Cape Colony Medical Council, of the Cape of Good Hope Branch of the British Medical Association and Cape District Surgeons' Association, and other interesting items of news. The editor is to be congratulated upon the issue. The journal has great possibilities before it, and should meet with support from the profession sufficient to secure to it a long life in its sphere of usefulness.

Digitized by Google

THE AUSTRALASIAN
MEDICAL GAZETTE.

SYDNEY, 20TH AUGUST, 1903.

THE DECLINING BIRTH-RATE.

MR. COGHLAN, the Government Statistician of the State of New South Wales, has recently issued a pamphlet which he calls an "Essay on Statistics," in which he deals with one of the most important of present-day social questions. It is well that we have in his position one who has spoken out with no uncertain sound on the serious position of Australia in view of the decline in the birth-rate, which has been in progress for the last decade.

The simple facts are these. While the population of the State has increased considerably in recent years (the figures of the last census showing a marked advance on those estimated), yet the proportion of childless marriages has increased out of all proportion, so that the birth-rate has fallen to 25 per 1000, which is only three more than that in France at the present time. As is well-known, the population of that country is practically at a standstill, and if the decline in the birth-rate in Australia continue to advance as it has in the past, we shall soon find ourselves in the same predicament.

MR. COGHLAN'S figures show conclusively that the fecundity of the Australian woman is not diminished, and that, compared with that of other nationalities, the possible fecundity of the native-born Australian woman is if anything higher than that of European women living in Australia. But the decline in the proportion of children to the marriage rate, and the advancing age at which women marry, confirms what is well known to the medical profession, if not to the general public, that for some reason or reasons the women of to-day decline the responsibility of maternity, and resort largely to artificial preventives against conception, and if conception does occur they resort to the abortionist to get rid of their burdens.

Various reasons have been assigned for this repugnance to maternity. No doubt the interference with pleasures and amusements which pregnancy and nursing of children involve weighs with some women; but we have a higher opinion of the maternal instincts of the Australian woman than to believe that there is a natural dislike to motherhood on such purely selfish grounds. We believe that in a large proportion of cases the reason lies in, perhaps, a more reasonable view of the difficulties and responsibilities of the rearing and training of children in the present day. The decline in the average income, the increased cost of living, the difficulty in securing efficient domestic service to assist in the household owing to the much larger number of young women who are now engaged in shops and factories, who in former times would have entered domestic service, are all factors which render it increasingly difficult to rear and maintain large families, and which, therefore, combine to lower the birth-rate. It may, moreover, be an open question whether it is not better for a married couple to have two or three children whom they can feed well and maintain in good health than to have seven or eight children whom they are quite unable to properly feed and clothe, with the result that both parents and children are impoverished in health, and some of them become a burden on the State in consequence of chronic ill-health. This is an aspect of the question which from an economic point of view needs to be considered.

But on the other hand there can be no doubt that the systematic use of check pessaries and all kinds of artificial methods of preventing pregnancy and childbirth reacts upon the moral and physical health of the parents. Who can doubt that the large increase in pelvic

Digitized by Google

disease among women at the present day is due to the interference with the ordinary course of nature, and the prevention of the generative organs fulfilling their normal functions?

In the existence of a declining birth-rate there are involved questions of the greatest importance, which cannot be solved in any offhand way, but which require the thoughtful consideration on the part of all who have the real progress and welfare of Australia at heart. We hope that the labours of the Royal Commission appointed by the New South Wales Government will be crowned with success, but the education of public opinion is a matter in which the members of the medical profession should take the most important part, if they are to discharge their duties as citizens as well as custodians of the public health.

THE SPREAD OF TYPHOID FEVER.

During the present year there have been epidemics of typhoid fever in different parts of the State of New South Wales of such extent and intensity as to warrant a serious consideration of the present state of our sanitary laws and regulations. Typhoid fever is a preventible disease, due to an organism with whose life history we are more or less familiar, and yet, in spite of our scientific knowledge, epidemics of this disease recur with surprising regularity. Reports on the outbreaks in the country towns and at Balmain have been made by the medical officers of the Board of Health, and in most cases they supply an answer to the question why this disease is so prevalent.

We know that the typhoid bacillus flourishes in water and milk, and one of the commonest causes of local outbreaks is the contamination of the food or water supply by these organisms. But in some epidemics the food and water supplies have been perfect and the sanitary system unimpeachable, and yet the disease has spread. These were the conditions found at Balmain according to Dr. Stokes' report. He made a special investigation into the water supply and also the food supply, and failed to find any evidence of infection in either. The residences in which the disease occurred were all connected with the sewerage system, so that there was no fault to find with the district on these scores. But he found a general want of cleanliness in the municipality and an inefficient system of disinfection, and these two defects in the sanitation were sufficient, in the presence of an endemic disease, to determine the outbreak and spread of it on the recent occasion. This implies that the infection must have gained access to the system by being conveyed in food or drink contaminated after its reception into the houses by means of flies or insects, or by dirty handling. All the facts are against the disease being conveyed from one to another by direct contact, except through the medium of the excreta. The occurrence of the organisms in the fæces is well known to be a source of contamination of the water supply. The occurrence of the organisms in the urine is a fact perhaps less well known, and may possibly be a cause of infection in some instances.

At Warren, in New South Wales, where a severe epidemic of typhoid occurred in the early part of this year, there is a good water supply and also a good sanitary system. At Cobar there is a poor water supply but an excellent sanitary system; and so, as Dr. Ashburton Thompson remarks, it is difficult to explain why Cobar and Warren should have suffered as heavily as Boggabri, Forbes and Tamworth, which have bad water supplies and very bad sanitary systems. It would appear that the conditions of the spread of the disease in these country towns were similar to those at Balmain, and the remedy for them lies in more stringent enforcement of the regulations of the Public Health Act, which enables the Board of Health to compel municipalities to take such steps as may in their opinion be necessary to ensure a satisfactory sanitary state of the boroughs. A pure food and drink supply alone will not prevent the spread of the disease

Digitized by Google

unless all filth accumulations and excrement are at once removed and destroyed; otherwise, by the agencies of flies and insects, the food will become contaminated, and so infection be conveyed to the inhabitants.

We know by practical experience that strict supervision of the food supplies, combined with an efficient sanitary system, does to a large extent prevent epidemics of typhoid, but more stringent regulations are evidently required to entirely abolish the disease from our midst.

THE MONTH.

A Proposed Home for Incurables.

At a meeting held in Sydney on July 20th for the purpose of inaugurating a movement to establish a memorial commemorative of valuable services rendered during the Boer war by Miss Gould and the Sisters of the New South Wales Army Nursing Reserve who accompanied her to South Africa, the following resolutions were adopted:—1. "That in the opinion of this meeting it is desirable that steps should be taken to show, in some tangible form, appreciation of the patriotism displayed by the lady superintendent (Miss Gould) and the Sisters of the New South Wales Army Nursing Reserve in going to South Africa at the time of the war, and of the valuable services rendered by them to the sick and wounded." 2. "That in order to give practical effect to the foregoing resolution, it is decided that a subscription list be now opened and that efforts be made to raise funds for the purpose of establishing a home for incurables, with which the names of the ladies indicated in the first resolution may be suitably associated." Archdeacon Langley and Dr. W. H. Crago were appointed hon. treasurers, and Mrs. James Wilshire and Miss J. S. Whitelocke hon. secretaries. Substantial subscriptions in aid of the movement were given and promised.

Expectorating in Railway and Tramway Carriages.

A new by-law has been drawn up by the Railway Commissioners of New South Wales with reference to expectorating in railway and tramway carriages. It has been approved by the Governor in Council and came into effect on August 1st. The by-law is as follows:—"Any person in any railway or tramway carriage who shall spit into or upon any such railway or tramway carriage shall be liable to a penalty not exceeding £2." It will be noticed that the restriction does not only apply to smoking cars, but to all descriptions of carriages.

Cancer Research.

The New South Wales State Premier has received a communication from the Secretary of State for the Colonies intimating that a fund had been started for the purpose of promoting investigations into all matters connected with or bearing on the causes, prevention or treatment of cancer and malignant diseases. The scheme has been approved by the Royal College of Physicians (London) and the Royal College of Surgeons (England), who have undertaken to control the inquiry. The memorandum shows that the idea originated in October, 1901. As soon as £30,000 was in hand for this purpose the work was started, though in place of using the interest, as was intended, the capital has been encroached upon. The position of Superintendent of Cancer Research was filled in October last by Dr. E. F. Bashford. Dr. Bashford has investigated the work done on the Continent, and is now in communication with scientific workers in the colonies and the United States. A statistical committee of experts is engaged in considering the best methods of statistical investigation both in Great Britain and abroad. A pathological committee is also studying the subject of cancer in animals. Investigation as to the records of malignant disease in the large hospitals is being pursued.

It has been calculated that in order to carry on thoroughly the research, £3000 a year at least is required. At the present time only a little over £50,000 has been received. Briefly the proposed scheme is: (1) To provide, extend, equip and maintain laboratories to be devoted to cancer research; (2) to encourage researches on the subject of cancer within the United Kingdom or in the British dominions beyond the seas; (3) to assist in the development of cancer research in various hospitals and institutions approved by the executive committee; (4) and generally to provide means for systematic investigation into the causes, prevention and treatment of cancer.

Suicide in the Medical Profession.

"Suicide is on the increase in all civilised countries," says the London *Daily Chronicle*. "Notably in England it is increasing amongst doctors. The reason is not far to seek. It has recently been shown that a doctor who might calculate on an income of over £400 a

Digitized by Google

years ago can count to-day on only something over £200. The simple causes of this are the increased health of the country at large and the diminishing death rate. The medical profession is working in these days of preventive medicine in the direction of its own extinction. When the last Anopheles mosquito, for instance, is killed and malaria passes into history, most of the doctors of the tropics may pack up their baggage and depart. Another cause is in the multiplication of the universities to whose interest it is to turn out as many graduates as possible, and the increasing competition which ensues. And, again, the hospitals are daily being used more and more by people who can afford to pay."

Government Maintenance of Consumptives.

Mr. Bent, the Victorian Minister for Health, proposes to arrange for the accommodation of consumptives at the Victorian Home for Aged and Infirm at Royal Park. His scheme is to use Mr. J. Kronheimer's gift of £5000 to the Association for the Prevention and Cure of Tuberculosis in the erection of additional buildings at Royal Park, the Government to undertake the maintenance of 40 beds for consumptives. Mr. Kronheimer has approved of this scheme.

Country Life and Lunacy.

In his annual report on lunacy in South Australia, Dr. Cleland, Superintendent of the Parkside Asylum, says: "By far the larger proportion of admissions to the asylum come from a section of the community whose daily avocations are of the nature of outdoor life and laborious employment. Theoretically, it has a hygienic sound to be out all day long in the sunshine and fresh air; practically, it is found to lead to premature decay when combined with working for a living, owing to the general exposure to wind and weather; so that, although to a townsman 50 years of age may not sound specially elderly, yet, under the circumstances mentioned, it is quite equal to 60 years of age under more favourable conditions. If, added to this, is the frequent privation and mental anxiety arising from the uncertainty of obtaining employment, it is not surprising to find that there is but a very small surplus of vital energy, if any, to help build up the exhausted brain centres after the mental breakdown."

Treatment of Tuberculosis in South Australia.

At the meeting of the Port Adelaide Board of Health held on Thursday evening a motion was carried, "That in view of the promise made by the Government to provide hospital accommodation for persons suffering from chronic tuberculosis, and also accommodation for convalescents, this Board of Health will, on same being ratified by Parliament, be prepared to sign the agreement (approved of by the executive committee) and pay the sum of £51 per annum for five years, provided the Adelaide and suburban boards agree to contribute in total not less than £400 per annum. This board reserves the right to reconsider the matter should the tuberculosis conference decide that the agreement shall be signed without approving of the conditions mentioned; copy of this to be sent to the secretary of the tuberculosis executive, and the Officer of Health and Cr. Fricker be delegates with power to act." The mover stated that at the recent conference he had been assured that the contributions of the various Boards of Health would enable the institution at Kalyra to meet all that was necessary to deal with chronic cases. Under the new scheme the Port Adelaide Board would be placed on the same terms as all the other boards. The Government had given a verbal promise that it would provide hospital accommodation, but his motion protected the Local Board, because it would be given effect to only on the understanding that the promises made were ratified.

Coroner v. Doctor.

In summing up at a recent inquest on the body of a man who was found dead at the Ovingham Railway Station, the Adelaide City Coroner (Dr. Ramsay Smith), commenting upon the alleged interference of Dr. Evans, of Hindmarsh, with the body when it was found dead, said: "It is highly improper for anyone to interfere with a body that has died from violence, and a medical man ought to know better than to do so. If a medical man has been ordered by a coroner to make an examination and give evidence, the more he can see of the body and the surrounding circumstances the better; but until he has been ordered to do so he ought to mind his own business and not intrude himself. I am certain that this course of action is the rule, and interference the exception, with gentlemen of the profession. I hope that if any medical man does in the future what this man has, the police will put him out, and use moral suasion only when they think it will have any effect." Dr. Evans, of Hindmarsh, states: "It appeared that he continued searching the body after the police had requested him to desist. As a matter of fact, the conversation between him and the police as

Digitized by Google

to his right to search a dead body occurred privately as they were leaving the place. He never was requested by the police to desist, and consequently did not refuse to do so."

Decreased Birth Rate.

The New South Wales Government decided to ask his Excellency Sir Harry H. Rawson to appoint a Royal Commission to inquire into and report upon the causes of the decreased birth rate in this State. The following gentlemen have been constituted the commission: Dr. Mackellar, M.L.C. (president), Dr. Paton (Government Medical Officer), Mr. E. W. Knox (Colonial Sugar Refining Co., Ltd.), Mr. T. A. Coghlan (Government Statistician), the Lord Mayor (Alderman Thomas Hughes), Mr. E. Fosbery, C.M.G. (Inspector-General of Police), Sir Normand MacLaurin, M L.C., Dr. Foreman, Dr. Nash, M.L.C., and Mr. W. A Holman, M.L.A. The Royal Commission has been appointed, with comprehensive instructions as to the nature of the inquiry it will be required to make.

Infectious Diseases Hospital, Melbourne.

A deputation, consisting of about 40 representatives of municipalities, headed by the Lord Mayor of Melbourne (Sir Samuel Gillott, M.L.A.) and Mr. Prendergast, M.L.A. (who is also Mayor of North Melbourne), waited on the Minister of Health to urge that the Government should contribute pound for pound subscribed by the municipal bodies for the maintenance and upkeep of the Infectious Diseases Hospital. Mr. Bent said that in fixing the Government subsidy at £1500 he had consulted with Dr. Gresswell, and that gentleman gave it as his opinion that the cost per bed should not exceed £60 per annum. With 46 beds, the total would therefore be under £3000. As to the request to compel unwilling municipalities to take their share of the burden, he would see that none escaped. He would bring in legislation as asked. Mr. Prendergast said that the average number of scarlet fever cases during the last four months was 91 per fortnight. With only 46 beds, many of these cases would have to be treated in tents. Dr. Gresswell had previously estimated that the maintenance of the hospital would cost £6000. That, perhaps, was the maximum amount, and the mean might be fixed at £5000. Mr. Bent said that he would be prepared to accept the balance-sheet of the municipalities at the end of the first year, and pay half the cost shown of maintaining 50 beds.

BRITISH MEDICAL ASSOCIATION NEWS.

PROCEEDINGS OF AUSTRALASIAN BRANCHES.

New South Wales.

THE regular monthly meeting of the Branch was held at the Royal Society's Room on Friday, July 31st, 1903. Dr. Brady (president) in the chair. There were 40 members present. Visitors: Dr. Louis Henry, of Melbourne; Dr. Esler.

The minutes of the previous meeting were read and confirmed.

The PRESIDENT announced the election of the following new members:—Dr. W. Broad, Narandera; Dr. E. M. Humphrey, Bellingen.

Nominated for election:—Dr. W. E. Harris, Armidale; Dr. A. M. MacIntosh, Sydney; Dr. P. L. Broadbent, Berry; Dr. Sexton, Tamworth.

Dr. ROTH read "Some Notes on Massage."

Dr. LITCHFIELD exhibited a Cerebellar Tumour. The patient, a child aged three years and ten months, was shown during life at a former meeting. The symptoms were ataxia of the lower limbs of ten months' duration, occasional but slight headache and vomiting, double optic neuritis, some incoordination of the right arm and hand, which was a late manifestation, and some enlargement and irregularity of the skull. In hospital, Dr. Clubbe trephined over the left occipital region, where there appeared to be some bulging. On exploring, a considerable quantity of cerebro-spinal fluid escaped. The child collapsed, was put back to bed, and died in collapse some hours later. A post-mortem examination revealed distension of the ventricles of the brain, and a large gliosarcoma in the cerebellum, involving both lateral and middle lobes. A hæmorrhage involved the right inferior peduncle of the cerebellum. This latter probably accounted for the ataxia of the right arm, while the ataxia of the lower limbs was due to the involvement of the middle lobe. No cause could be assigned to the hydrocephalus, as the foramen of Majendie was not blocked, and there was no obstruction to the veins of Galen.

Dr. LITCHFIELD also exhibited and explained Haas' "Materna" glass for the home modification of milk, according to the American or percentage system of infantile feeding. He thought it would be useful under certain circumstances.

Dr. STORIE DIXSON said from his experience in the Benevolent Asylum of the benefits of feeding children on the lines now becoming popular in America, and which seem to be a distinct advance in infant dietetics, he believed that the simple apparatus exhibited by Dr. Litchfield would prove a decided boon to those who have the important task of artificially feeding infants entrusted to them. Doubtless this method has helped somewhat in attaining that almost total absence of anything resembling epidemic inflammation of the stomach and bowels and of marasmus in the infants of the institution during the last 16 months, within which period is included last summer, when, outside the institution, the death-rate was so high.

Mr. HANKINS showed a patient suffering from a Growth on the Larynx, hiding the left vocal cord. The case had been under observation for 12 months, and was at first thought to be malignant. It improved slightly under iodide, but for nine months no medicine has been taken, and at the present time the condition as to breathing and vocalisation is better than it was. The growth is also somewhat firmer, smaller, and paler in

Digitized by Google

colour. Some glands under the jaw which were tender and swollen have subsided. The patient being a Syrian, speaking and understanding scarcely any English, it is extremely difficult to obtain any trustworthy information from him, but it is believed he has been hoarse for years.

The patient was then examined by Drs. Brady, Kirkland, Nolan, Dixson, Sandes, Gillies, Arthur and others, the general opinion being that the growth was a fibroma.

Dr. FIASCHI read some notes on a case of Fracture of the Patella treated by Ferraresi's teno-plastic operation, and exhibited the patient (p. 345).

Dr. BRADY exhibited a patient showing the result of operation for Temporo-sphenoidal Abscess.

Dr. BRADY exhibited the "Akouphone," an instrument to enable the deaf to hear, and gave a demonstration of its action on a deaf mute.

Mr. HANKINS, referring to the "Akouphone," said perhaps those present might like to know the opinion he had formed respecting its use. The instrument might be described as a highly sensitive telephone, and he was told that the capsule contained some kind of gas, the nature of which he did not know, nor could the agent (Mr. Perrott) tell him. The deaf mute present, as had been shown, was able to hear by means of the instrument, and to repeat, more or less perfectly, vowel sounds. The agent had accompanied Mr. Hankins to the theatre with the idea of trying the instrument at a public performance. The result was disappointing, as certain expressions that one scarcely desired to hear were exaggerated to the discomfort of the hearer, while asides and innuendos were lost. It was, however, to be explained that the instrument before them was not of the most recent pattern, there being another of an improved type. This instrument had not yet arrived, but it would be in Sydney in October next. It seemed to him that the instrument was on right lines, but it would be well to defer expressing a definite opinion pending the arrival of the more recent pattern. The apparatus had been brought under the notice of the profession earlier than had been intended owing to newspaper reports that had appeared in the Australian press, and this fact had forced the hand of the agent. He explained the instrument and its uses.

Dr. KIRKLAND thought the use of the instrument might have a beneficial effect on the hearing powers in cases of middle ear deafness, from the mechanical action of the vibrations on the ossicles. Dr. Dundas Grant had some time ago advocated the use of a vibratory instrument, but very little had been heard of the treatment of late. The idea was suggested by the improvement in the hearing noticed by some relatives whilst using a bicycle on rough roads.

Dr. GEO. ARMSTRONG exhibited a pathological specimen—Cervical Fibroid Tumour of the Uterus—complicating pregnancy.

Dr. MCKAY exhibited a pathological specimen—Fibroid Tumour of the Uterus, also complicating pregnancy.

Mr. HANKINS exhibited an improved form of Galton's whistle, by Edelmann, of Munich. A very good description of the instrument and its uses may be found in the appendix of the last edition of the "Practitioners' Handbook of Diseases of the Ear and Nasopharynx." (Baillière, Tindall & Cox). Mr. Hankins also showed a series of "Kundt's Dust Tubes," by which the sound waves produced by the Galton whistle may be measured and the number of vibrations estimated. The whistle produces tones from the highest C of the pianoforte upwards for four or five octaves (*i.e.*, from 2,000 to 50,000 vibrations per second), and each instrument is tested for every note in the scale before being issued. Its use is principally to differentiate between deafness caused by middle ear affections and those of the labyrinth.

Personal Explanation.—Mr. Hankins desires to express regret that in his notes of a case of cerebellar abscess, appearing in the AUSTRALASIAN MEDICAL GAZETTE of June 20th, the name of Dr. Purser, the physician in charge, was omitted. Mr. Hankins has only lately learned that Dr. Purser, who was absent on vacation when the case was admitted, took charge of it on his return on April 1st, diagnosed an abscess of the brain consequent on chronic ear disease, and instructed the resident to ask the aural surgeon to see the case. It was Dr. Purser, also, who ordered the second lumbar puncture, performed on April 3rd, which was attended with the remarkable two hours' cessation of respiratory action.

Council Meeting.

THE Council met at the Association Rooms on Friday, August 7th, at 8.30 o'clock. Present: Drs. Brady, Crago, Dick, Hankins, Pockley, Abbott, Fiaschi, Worrall and Foreman.

The minutes of the previous meeting were read and confirmed.

The following new members were elected:—Dr. Sexton, Tamworth; Dr. MacIntosh, Prince Alfred Hospital; Dr. Broadbent, Berry; and Dr. W. E. Harris, Armidale.

The following correspondence was read:—

Letter from Dr. Dixon, of London, with reference to advertisements of a firm of quacks. Resolved—"That the Registrar of the R.C. of P. of Glasgow be written to and asked to remove the name of the advertiser from the register; also, that the name of another practitioner be sent to the Colleges with the same request."

Letter from Dr. Shorter stating that his resignation as Medical Officer of the Phœnix Society had been accepted. Resolved—"That Dr. Shorter be informed that he is now eligible for membership of the Branch upon application."

Letter from a member with reference to the Balmain Dispensary and the A.N.A.; also letter from the secretary of the Balmain Dispensary. Resolved—"That a letter be written to the medical officers of the Balmain Dispensary pointing out that the dispensary had broken faith with the Branch in not severing its connection with the A.N.A. as promised, and unless its connection with the A.N.A. be broken off within one month the Balmain Dispensary would be declared prejudicial to the interests of the medical profession in terms of Article of Association No. 36."

Letter from the Victorian Branch of the B.M.A. relating to the subscriptions of members; also letter from the South Australian Branch on the same subject, and asking the N.S.W. Branch to act for them in the matter.

Letter from the Home Association on the subject of Branch members' subscription. Resolved—"That the Home Association be communicated with asking for the necessary alteration in the by-laws."

Letter from the secretary of the Medical Congress stating that Dr. A. A. Palmer had been appointed State secretary to the Congress for New South Wales.

The HON. SECRETARY reported that he had interviewed Mr. Wise (the Attorney-General) on the subject of medical witnesses' fees, and that he had promised to look into the matter as soon as possible.

The HON. SECRETARY reported that Dr. Louis Henry, of Melbourne, had called upon him with reference to the

Digitized by Google

amalgamation of the Victorian Branch and the Medical Society of Victoria. Matter was deferred until next meeting of the Council.

Letter from the Eastern Suburbs Medical Association forwarding copies of resolutions passed by that association with reference to lodge fees in that district:—(1) "That the fees per member per annum for members of women's lodges in the eastern suburbs be the same as members of men's lodges, viz., 18s per member per annum." (2) "That no member of the Eastern Suburbs Medical Association accept the appointment of medical officers to a juvenile lodge." In view of the foregoing resolutions, affecting certain medical men who already hold lodges, the following resolution was carried: "That no member of the E.S.M. Association should oppose the re-election of the present medical officers of the Lady Rawson Women's Lodge who will apply at the rate of 18s per member per annum, and that the hon. secretary of the E.S.M. Association communicate with the New South Wales Branch British Medical Association and other metropolitan medical associations and inform them of these resolutions, and request their hearty co-operation." Resolved—"That the Council accord its hearty co-operation with the E.S.M. Association in its action in this matter."

Resolved—"That the Women's A.N. Association be declared prejudicial to the interests of the medical profession in terms of Article of Association No. 36."

Representatives to the Home Council.—Resolved—"That two medical men be nominated as representatives of this Branch on the Home Council."

The Hon. Treasurer reported that the following were the credit balances to the funds: General account, £261 7s 6d; Gazette account, £80.

The Hon. Treasurer reported that he would be able to pay off the balance of the amounts subscribed for the purchase of the A. M. Gazette. Resolved—"That the necessary sanction be granted to have these amounts repaid."

Resolved—"That the balance owing to Dr. Knaggs on account of the editorship of the Gazette be paid."

Ballarat.

The ordinary quarterly meeting of the Ballarat District Branch was held at the Ballarat Hospital on July 30th, 1903. Present: President (Dr. Usher) and 11 members. Apologies were received from Drs. B. J. Adam, Davies, Martin, Morrison, Salmon, Affleck Scott, Beattie Smith.

The minutes of meeting held on April 30th, 1903, were confirmed, on the motion of Drs. Gardiner and Courtney.

Correspondence: Secretary Victorian Branch and Miss Radcliffe received. On motion of Drs. Nisbet and Steell the offer by Miss Radcliffe of a number of medical books and bound volumes of *Lancet* belonging to her late father was gratefully accepted.

Accounts: Printing, £1 3s, passed for payment.

Drs. Nisbet and Gardiner moved that the minutes of special meeting, held before the ordinary meeting opened, to alter Rule 10, be confirmed. Carried.

Dr. Champion read a paper on "Hæmorrhage in Newly Born" (p. 355). In reply to Dr. Nisbet, did not observe any abdominal condition to which parotitis might have been secondary. To Dr. McGowan: There was no icterus.

Drs. R. Scott and Courtney referred to similar cases.

Dr. Mitchell mentioned hæmaturia as being rather more common.

Dr. Usher remarked that in "Carpenter's Physiology" reference was made to a vein accompanying the ductus communis choledochus which sometimes opened into the duct just before it entered the duodenum, and Dr. Usher thought might possibly have some effect in the causation of this disease.

Dr. R. Scott read his paper, "Notes on Cases of Scirrhus of Breast" (to appear in a future issue).

Dr. Richards read his paper on "Athetosis." The patient 15 years ago suffered from typhoid fever; following on this came hemiplegia, from which he recovered. He was admitted to Ballarat Hospital early this year suffering from typhoid, and the spasms described were observed whilst patient was under treatment. He stated that since the hemiplegia he occasionally had spasmodic attacks. To Dr. Gardiner: There was no sensory symptoms. To Dr. Nisbet: There is no hemiplegia now, and the man is working.

Drs. Champion and R. Scott moved that a letter of condolence be sent to the relatives of the late Dr. Radcliffe. Carried.

South Australia.

The usual monthly meeting was held at the University on Thursday, July 30th. Present: The President (Dr. M. Jay) and 27 members and two visitors.

Exhibits were shown by several members.

Professor Watson showed the following specimens:—

1. Pseudo-membranous cast of the bladder, passed by a girl *æt.* 12 after a plastic operation for congenital incontinence.—Dr. V. Plummer.

2. Naso-pharyngeal fibroma, the size of a hen's egg, torn from the base of the skull of a man *æt.* 60, who was a mouth breather before the operation.—Dr A. Fischer.

3. Framed skiagram of the pulmonary circulation, presented to Medical School.—Dr. Herschel Harris, Sydney.

4. Bladder, with adenomatous prostate, dissected so as to show the relations of the prostatic urethra, capsule, etc.—Dr. W. A. Giles.

5. Prostatic adenoma resembling a double cocoanut in miniature, removed by Freyer's method from a man *æt.* 61, who now passes his water perfectly.—Dr. W. A. Giles.

6. Dilated kidneys with enormous hypertrophy of bladder, due to the presence of a median lobe, the size of a small bean, which acted like a ball valve, from a man *æt.* 65.—Dr. Angas Johnson.

7. Congenital atresia of the terminal part of ileum, from an infant. On the third day of life an artificial anus was made to relieve the obstruction, but 10 days later death ensued from malnutrition. The small intestine is greatly dilated, and contains bile-stained fæces. The whole of the colon is quite empty, and contracted.—Dr. C. H. Souter, Balaklava.

8. Annular cancer of sigmoid flexure from a man *æt.* 65. The pelvic colon formed a circle with enlarged glands in the centre; the rectal limb was in front; the mass was adherent to the bladder, omentum, ileum and to a displaced cæcum. The patient, who was dying from obstruction, picked up so much after the establishment of an artificial anus that a month later it was decided to extirpate the whole mass. The artificial anus was too close to the growth to permit of the latter being removed from a median incision, or of the former being temporarily retained as an escape valve; it was, therefore, excised with the rest of the mass and the cut end of the descending colon united to the rectum by a double row (Connell-Lembert) of sutures. Fæces passed naturally for several days, but constant coughing necessitated frequent change of position. While propped up in bed on the tenth day a terrible hæmorrhage from the internal iliac vein occurred, and the patient died next day.—Dr. C. Todd.

Dr. Humphrey Marten showed a prostate he had removed that morning, by the suprapubic route, from a man aged 67, who had had symptoms for the last

Digitized by Google

three years, and had had to urinate 16 to 20 times at night. The gland shelled out with great ease and probably brought away the prostatic urethra with it, but the specimen was handed over to Dr. Cavanagh-Mainwaring for a report.

Dr. REISSMANN showed, under microscopes, a specimen of Nonilethrix or beaded hair. Each hair consists of a series of nodes, or swollen part and of internodes, or constricted part. The pigment is collected at the nodes, absent at the internodes. The hair is brittle and breaks off readily at the internodes. Malcolm Morris considers it to be due to a succession of atrophic changes in the hair occurring at periodic intervals. The specimen was taken from a girl, aged 18, who complained of her hair being brittle, breaking off readily and leaving a short stump. The condition affected all the hairs.

Dr. J. C. VERCO showed (1) a parovarian cyst from a patient aged 18 years. At the examination under ether it was immovably fixed in the pelvis and lower abdomen. At the operation it presented as a pseudo-intraligamentary cyst of the left side, the broad ligament forming its pedicle being spread over its front and upper part, with the Fallopian tube constituting its falciform right margin. It showed the characteristic stretching of the Fallopian tube, the looseness of the peritoneal covering, which could be easily separated down to the base of attachment near the ovary, an intracystic papillary mass, a small basal subsidiary attached cyst equal to a French bean in size, a third distinct parovarian cyst as big as a pea in the parovarium, the normal ovary about half an inch distant from the main cyst, and two tiny pedunculated cysts developed from Kobelt's tubes. (2) A right ovarian tumour from a patient, aged 65, whose abdomen had been enlarging for about ten months. There was obscure evidence of free fluid in the abdomen, though the thrill was not satisfactory, and altered position did not give as marked difference in percussion resonance as one would have expected with ordinary ascites. There was no disease of heart, lungs or kidneys, and no enlargement of liver, though there was a remote history of gallstones, ceasing six years ago. No abnormality was palpable per vaginam. Aspiration, with a large needle, midway between the umbilicus and the pubes, drew off jelly-like material. Cœliotomy revealed the peritoneum full of colloid material, with numerous tiny growths on the intestines, a mass as large as a hen's egg in the right hypochondrium, on a thick soft retracted omentum, and the ovarian tumour which formed the exhibit. This showed the remains of an ovarian cyst, which had burst and now was turned inside out and formed a collar around the pedicle about 2 in. in width, covered on one side with colloid masses. From the centre of this side rose three conjoined cysts, which, together, were as big as a child's head, studded outside with colloid papillomata and filled with colloid material. The end of the Fallopian tube was attached to a mass of colloid tissue as big as a walnut. Close enquiry elicited that she had had a sudden severe abdominal pain about 18 months ago which had laid her by for a day or two, though she had no medical attendance. She had evidently had an ovarian tumour containing papillomata. While still small it had burst and infected her peritoneum generally. The subsidiary cysts at the base of the original cyst had then continued to grow until they were as large as a fœtal head at term. Probably the mass at the fimbriated extremity of the Fallopian tube was once part of the original cyst wall, and very possibly that on the omentum was another portion. The patient recovered from the operation, but the abdomen immediately began to distend again with the colloidal substance.

Dr. JAY then read a paper on "Macroglossia" (see p. 354), which was followed by a paper on "Umbilical Hernia," by Dr. TODD, and a paper on "Prostatectomy," by Dr. W. Ansley Giles (to appear in a future issue).

All these papers, especially the last, were followed by discussion by various members.

West Australia.

AN ordinary general meeting was held on June 17th at the Perth Public Hospital. There were present Dr. H. T. Kelsall (president) and 11 members.

Dr. NEWTON explained to the meeting that it was without his knowledge and greatly to his disapproval that his name had appeared in Dr. Haynes' public newspaper correspondence. He had written to the editor of the *Daily News* requesting him not again to mention his (Dr. Newton's) name in connection with the matter. So far he had received no reply from the editor, and his name had, even since writing to the editor, been again mentioned in the paper. Dr. Newton's repudiation of this matter was received by the meeting with great satisfaction and approval.

Dr. SAW moved—"That this Association urge upon the Government the necessity of establishing a sanatorium for consumptives in this State, and that a sub-committee be formed to collect data and submit same to the August general meeting of this Branch." The motion was supported, seconded, and carried unanimously. The following were appointed the sub-committee: Drs. Saw, Kelsall, Astles, Blackburne and Leschen.

Dr. T. L. ANDERSON gave a microscopic demonstration on bubonic plague bacilli from man, rat, and guinea pig.

REPORTS OF SOCIETIES.

Eastern Suburbs of Sydney Medical Association.

WOMEN'S LODGES AND JUVENILES' LODGES.

A GENERAL meeting of the members of the above association was held at the *A.M.G.* library, 121 Bathurst-street, Sydney, on August 4th, at 4.30 p.m. Dr. M. O. Gorman Hughes (president) occupied the chair.

The meeting was called to deal with most important matters concerning the profession and the clubs in the eastern suburbs. The council of the E.S.M.A. had considered the subjects and submitted recommendations to the members. The recommendations were adopted. The following resolutions were carried unanimously:—

1. That the fees to be charged for members of women's lodges in the eastern suburbs be the same as for members of men's lodges, viz., 18s per member per annum.

2. That no member of the E.S.M.A. oppose the re-election of the present medical officers of the Lady Rawson Women's Lodge who will re-apply at the rate of 18s per member per annum; and that the secretaries of the New South Wales Branch, British Medical Association, and the Sydney Metropolitan Medical Association, and the Northern Suburbs Medical Association, and the Western Suburbs Medical Association be communicated with, notifying their associations of these resolutions and asking their co-operation.

3. That no member of the Eastern Suburbs Medical Association should accept the position of medical officer to a juveniles' lodge.

Digitized by Google

REVIEW OF CURRENT MEDICAL LITERATURE.

MEDICINE.

The Treatment of Aneurism by Gelatine Injections.

Guthrie Rankin, in a paper read before the Royal Medico-Chirurgical Society of London, in June, 1903, discusses the question of the treatment of aneurism by subcutaneous injection of gelatine, and records the result of this treatment in four cases. . . . The method of subcutaneous injection of gelatine was first recommended by Lancereux in 1897, when he reported the practical cure of a man aged 46, who had been suffering from an aneurism of the ascending aorta. In the following year Lancereux reported five additional cases of this disease, in which complete cure had resulted, while in the remaining two death had occurred—one from rupture of the sac, and the other from uræmia. He sums up the conclusions which were to be drawn from this further experience:—"Gelatine introduced into the subcutaneous cellular tissue penetrates into the blood, which it renders more than normally coagulable; and since this blood encounters in the aneurismal sac two conditions favourable to coagulation, namely, a retardation of its current and a vascular wall, which is frequently uneven, there is produced a more or less abundant formation of clots, which in time fill up the sac. Ultimately these clots contract, the pouch which contains them diminishes in size, and the pressure symptoms to which it gave rise diminish and disappear. If softening of the clot takes place, the blood penetrates between it and the walls of the sac, and the tumour is reproduced. Under such conditions, fortunately, coagulation again takes place readily; gelatine, therefore, constitutes an excellent therapeutic agent which, if it does not cure true aneurisms, at least favours the natural process of cure." Good results have also been recorded by some Continental observers, but in England the treatment does not seem, so far, to have been received with much enthusiasm nor practised with much perseverance. Rankin states that he has not found it possible to introduce into the subcutaneous tissue more than 100 c.c. without producing local pain, and even this amount must be injected slowly, over an interval of 10 or 12 minutes, in order to avoid discomfort and over-distension of the skin. A considerable swelling is produced at the seat of the injection, but this entirely subsides within from 12 to 24 hours. The inner aspect of the thigh has been found a more convenient situation than the buttock; in one case where the pectoral region was chosen, the patient complained of so much pain that the experiment was not repeated. In all the cases the patients were kept confined to bed during the course of the treatment, and the injections were repeated twice a week. Concurrently with the gelatine treatment, iodide of potassium was given in 10-grain doses three times a day, and with it was combined minim doses of nitro-glycerine solution (1 in 100) whenever the pulse tension became excessive, or when there were anginal symptoms. The injections were made with an ordinary glass syringe of 100 c.c. capacity, having metal fittings and an adjustable piston. The gelatine solution was made as follows:—Gelatine, 1 oz.; chloride of sodium, 131 grs.; sterile distilled water, to 50 oz. These are put into a flask, plugged with cotton wool, allowed to stand an hour or two for the gelatine to soften, and then the heat from a water-bath applied to effect solution. The flask is afterwards placed in a steamer for an hour, and is subjected to this treatment for three consecutive days. Immediately before use, the quantity to be employed (100 c.c.) is again re-steamed. Every precaution is taken to ensure complete asepsis, not only of the solution, but also of the patient's skin and of the instruments used. The first case treated by Rankin was a fireman, aged 35 years, with an alcoholic and syphilitic history, who had all the signs of an aneurism of the arch of the aorta, and was in much distress with constant pain and dyspnœa. After a week's rest in bed injections of gelatine were commenced in the manner described, and were continued for ten weeks, twice a week. The pain gradually disappeared, and he was able to lie down and sleep in the recumbent posture. The pulsation in the chest was much diminished, and there was no pain on pressure or palpation over the site of the aneurism. Case 2 was one of abdominal aneurism in a man, aged 47, in whom all the physical signs of aneurism were present a little to the left of the middle line at the epigastrium. After three weeks' rest in bed in hospital, during which he required large doses of morphia to enable him to rest at all, gelatine injections were begun; 12 injections in all were given. The pain entirely disappeared, and on leaving hospital there was only to be felt a small, oval, firm mass, about the size of a hen's egg. The third and fourth cases were both of aneurism of ascending aorta, in men of about 50 years of age, and in both the same satisfactory results were obtained. Rankin gives the following conclusions:—1. That gelatine injections, say, with proper precautions, be given subcutaneously with safety. 2. That they produce a marked and speedy decrease in all the subjective, and in some of the objective, symptoms presented by internal aneurism. 3. That this relief of symptoms is only explicable on the theory of a diminution in pressure effects from shrinkage in size of the aneurismal sac. 4. That this diminution in size, accompanied with marked increase in the resistancy of the tumour wall, was capable of physical demonstration in three of the cases treated. 5. That the after histories of the patients, so far as they could be obtained, afforded evidence that probably the beneficial results were permanent, and that, at least, they had not been seriously invalidated by the habits and exertions of the patients between the date of their discharge from the hospital and that of being last seen.

On the Occurrence of Diastolic Murmurs without Lesions of the Aortic or Pulmonary Valves.

Cabot and Locke (*Johns Hopkins Hospital Bulletin*, May, 1903) record four cases of this nature verified by autopsy. Two years ago they had made a study of the clinical records and autopsy findings of all the cases which had died at the Massachusetts General Hospital with signs supposed to be due to valvular heart disease. The result of this work was briefly to show that in this series of records mistakes in diagnosis were most frequent in tricuspid regurgitation, and least frequent in *aortic regurgitation*. Although there were several cases in which a shrivelled aortic valve (unsuspected during life) was found at autopsy, there was not a single case in which a diagnosis of aortic regurgitation made during life failed to be substantiated at autopsy. However, in the last year four cases had occurred in which, largely owing to the presence of a diastolic murmur, aortic regurgitation was suspected during life, but at autopsy normal aortic valves were found. Case 1.—Uncompensated cardiac disease in an adult alcoholic. Heart slightly enlarged transversely. Visible arteries pulsate strongly. Pulse irregular, low tension. Systolic murmurs in aortic and mitral areas, and *diastolic murmur in the 3rd and 4th*

Digitized by Google

intercostal spaces, close to the sternal margin. Urine of passive congestion (apparently). Death eleven days after admission. At the autopsy the cardiac valves and cavities normal. Aorta 8 c.m. in circumference. Case 2.—Three weeks orthopnœa with œdema of legs and face in a very anæmic woman 20 years old. Marked transverse enlargement of heart. Pulse 120, regular, high tension. *Diastolic murmur loudest over 4th and 5th left costal cartilages.* At autopsy, hypertrophy and dilatation of the heart. No valvular lesion. Aorta 5·5 c.m. in circumference. Kidneys show lesions of chronic glomerulo-nephritis. Case 3.—A woman 34 years of age, alcoholic, very anæmic from profuse and frequent nose-bleed and from a recent post-partum hæmorrhage. Slight transverse enlargement of the heart. *Diastolic murmur loudest over 4th left costal cartilage.* Systolic murmurs at the aortic and mitral areas. Pulse, low tension. At autopsy, heart fatty; valves and cavities normal; fatty kidneys. Case L.—Typical pernicious anæmia. On admission (after exertion) a *diastolic murmur along the left sternal margin.* This case was a male aged 56 years. He died four months later, and at the autopsy the ordinary lesions of pernicious anæmia were found. The heart was fatty, the valves and cavities all normal. In discussing these cases in the light of previous knowledge, the writers state that the first of this series of cases belongs to the group of those in which the diastolic murmur is supposed by most writers to be due to a genuine regurgitation at the aortic orifice resulting from dilatation of the ring into which the valves are inserted. The other three cases appear to belong to the class of diastolic murmurs studied especially by Sahli and supposed by him to be due to the intense anæmia present in his cases as in those now reported. Two explanations of these murmurs seem most plausible: (1) That of Sahli, that they result in some way from the extreme thinness of the blood; (2) that they are due to a temporary elastic stretching of the aorta, relieved when the heart ceases to beat, and, therefore, not demonstrable post mortem. Against the second of these explanations Sahli urges the objection that the blood pressure in his cases was very low and that high blood pressures would be necessary to produce any stretching of the aortic ring. Low blood pressure was present in two of the three anæmic cases now reported; in the third, owing to a chronic glomerulo-nephritis, the blood pressure was high and might conceivably have stretched the aortic ring, especially as the aorta was unusually thin and elastic in this, as in so many cases of intense anæmia. For the other two cases no better explanation than Sahli's can be offered, namely, extreme thinning of the blood, though this does not seem to the writers by any means a satisfactory one. There was no venous hum in any of the cases, nor was any marked change produced in the murmurs by changes of position or by different phases of respiration.

Trophic Changes, the Result of Nerve Injury.

James (*Scottish Medical and Surgical Journal*, May, 1903) reports three cases in which lipomata, Raynaud's disease, and onychia were one and all the result of nerve injury. The first case was that of a miner who was admitted to the Edinburgh Royal Infirmary complaining of pain in the back and over the front of the chest, with little swellings over the lower part of the trunk. He had been previously a healthy man, with no antecedent tendency to disease. His illness dated from an accident, when a large mass of coal fell upon his back while he was stooping down. His back was injured to some extent, and he appears to have received some injury to the spinal cord. The peculiar trophic disturbances were found in connection with the skin. They showed themselves as little swellings, varying in size from that of a pea to that of a flattened plum. They were freely movable, felt fairly firm, and were painless on pressure. They had come out ever since the accident, and, as far as can be ascertained, they came out in succession, and were confined in their distribution to the part of the trunk innervated from the region of spine which had been injured. These were found to be lipomata. The second case was that of a soldier, aged 23, who was admitted to the Edinburgh Royal Infirmary affected with the "local asphyxia" form of Raynaud's disease in both hands. He had previously been perfectly healthy. At the battle of Magersfontein he received a gunshot wound of the left hand, the bullet passing clean through the metacarpal-phalangeal joint of the middle finger. The wound healed readily, but the injured bones had completely anchylosed. About six weeks after the wound he observed that the left hand began to feel numb and cold, and to show more or less constantly a bluish colouration. Shortly afterwards he noted the same feelings and discolouration in the right hand. This becoming gradually more and more marked, he was admitted to the infirmary. On examination it was evident that in the track of the bullet, and in the parts around, there had occurred much fibrous matting of the subcutaneous and deeper tissues. Exposure of the hands to cold aggravated the livid condition, whilst heat, as in the Greville hot-air bath, diminished it somewhat. The cicatricial tissues were freely opened and removed, the nerves exposed and freed, and the affected finger amputated. The wound healed rapidly, and, aided by the hot-air apparatus, the lividity and other symptoms rapidly disappeared, and the patient was discharged recovered. The third case was that of a dressmaker, aged 19 years, who complained of pains in the three radial digits of the left hand, with deformity in the nails and finger-tips. This condition had existed for seven years. On examination it was observed that there was great thickening, roughening, and overgrowth of the nails, with some wasting of the finger-tips of the left hand. On the inner aspect of the elbow-joint there was extensive cicatrisation, the result of previous long-standing bone disease. There was also on the front of the forearm, just below the elbow, a large cicatrix. This latter appeared just over the position of the median nerve, and pressure upon it elicited pains which shot up and down the arm. The cicatrix on the front of the upper forearm over the usual position of the median nerve was first explored; but this nerve was found, not at this its usual position, but kinked down close to the internal aspect of the joint and fixed in a mass of cicatricial fibrous tissue. It was dissected out and freed, and the wound closed. The nail of the index finger was removed for bacteriological examination. As a result of the operation the condition progressed to complete recovery. The new formed nail tissue had all the appearances of health, and the patient was able to use the hand and fingers for sewing quite freely. Examination of the nail for organisms, by culture and by inoculation, revealed no tubercle, only streptococci and staphylococci.

PATHOLOGY.

The Mechanism of the Absorption of Granular Materials from the Peritoneum.

MacCullum (*Johns Hopkins Hospital Bulletin*, May, 1903) says that there has been for a long time a desultory discussion as to the manner in which various materials are absorbed from the peritoneum, and even in the case of solutions it does not yet seem quite clear whether they are absorbed exclusively by the lymphatics or very

Digitized by Google

largely by the veins. In the explanation of the absorption of granular materials we have an even more complicated process, which illustrates always the adaptation of the organism to a pathological condition, for one really cannot speak of an absorption of granular materials from the peritoneum under normal conditions. It would seem *a priori* improbable that a special structure of the peritoneal walls should be arranged for the accommodation of granules of a certain size which might gain access to the peritoneum. The peritoneal cavity is lined by a complete layer of peculiar epithelial cells, which lie on a basement membrane uniformly thin except where it overlies the lymphatic lacunæ, in which position it is represented by a lattice work of fibrils separating the epithelium from the surface of the lymphatic. Approaching the peritoneum at these points are the oval sacs or lacunæ, which are the absorbing terminals of the diaphragmatic lymphatics, and which, while possessed of a complete lining of endothelium, are separated from the peritoneal cavity only by the loosely-woven connective tissue and the peritoneal epithelium. We have therefore to deal with at least three elements in the absorption of material from the peritoneum, no matter whether such materials pass directly through the roofs of the lacunæ or first through the peritoneal epithelium at a distance from them, and then, by a circuitous route, through crevices in the tissue to the walls of the lymphatic channel. These three elements, which can afford a certain obstruction to the progress of the absorbed material, are then the peritoneal epithelial layer, the basement membrane, and the lining endothelium of the lymphatic. There is no doubt that phagocytosis plays an important part in the transportation of pigment from the peritoneal cavity to the cavity of the lymphatics, for not only have we leucocytes wandering into the lymphatics and carrying pigment, but the epithelial and endothelial cells themselves take up the pigment and may perhaps be able to transfer it one to the other. Leucocytes laden with pigment may also be seen wandering in the crevices of the tissue outside the lymphatic, but doubtless these later enter the lymphatics also. When we see leucocytes actually penetrating the barrier between the peritoneum and the lymphatic with its load of pigment, there seems to be little doubt of its significance. The respiratory movement of the diaphragm is an important aid also in the absorption from the peritoneum. The mechanism by which it produces a pumping action is simple enough. In inspiration, when the diaphragm is relatively flat and contracted, the spaces between its constituent muscles and connective tissue fibres become compressed; and conversely, in expiration, when it arches up into the thorax, these elements separate and the intervening spaces are widened. It is very easy to see, therefore, that the lymphatic channels which lie in these spaces are also alternately distended and compressed; in other words, there is an actual pumping action carried on incessantly by the respiratory movements. In order to determine whether or not this is necessary to absorption in the living dog, elimination of respiratory movements was brought about by the wide opening of the chest. The lungs were drawn out as far as possible, and active artificial respiration kept up, so active that no impulses came from the nervous system to the diaphragm to produce its contraction. When the dog was then tipped up by the elevation of the hind legs, the diaphragm bulged slightly into the thoracic cavity, and remained quite quiet. Carmine in suspension was then injected into the peritoneal cavity, and the dog kept alive for two hours. At the autopsy it was always found that in spite of the absence of respiratory movements there was fairly abundant injection of the lymphatic lacunæ, and enough carmine reached the anterior mediastinal glands to colour them red. We have, therefore, in the absorption from the peritoneum a process in which a very important rôle is played by the phagocytic cells, but in which the mechanical aspiration of granules through the lax cell membranes by the respiratory movements is also possible. The author concludes that there is no support whatever for the statement that there exist open communications between the peritoneum and the lymphatics, nor can the idea be upheld that the peritoneal cavity forms part of the lymphatic system.

Experimental Fat Necrosis.

Wells (*Journal of Medical Research*, February, 1903) records the results of an extensive experimental research on this subject. His conclusions are as follow:—1. Fat necrosis seems to be merely a special form of necrosis of fat tissue, differing from simple necrosis chiefly in the sharp limitation of the affected area, usually by a wall of leucocytes and later by connective tissue, and the filling of the necrosed cells by the products of fat splitting. 2. It can be produced experimentally in some animals by intra-peritoneal injections of fresh hog pancreas, the results being the same whether the solutions are in weak alkalies or acids or in water. Fat necrosis produced in this way is the same in appearance as human fat necrosis. 3. The same results can be obtained by the use of ordinary commercial pancreatins. 4. This property of pancreatin survives heating for five minutes at a temperature between 65 and 71 deg. C. Above this temperature the property is entirely lost. These observations point to enzyme action as the source of the condition. 6. It has been impossible to ascertain which of the pancreatic enzymes causes fat necrosis. 7. Simple alkaline solutions of the strength of pancreatic juice, or slightly stronger, do not produce fat necrosis. 8. Many of the features of fat necrosis may be produced after death in animals, and also *in vitro*, with pancreatin, but the resulting condition does not resemble fat necrosis at all closely. 9. Dissemination outside the abdominal cavity has been observed as early as 12 hours after intra-peritoneal injection, the route of the dissemination being by the lymphatic system. 10. The forms of the foci produced seemed to depend simply upon the area exposed to the action of the pancreatin. 11. The earliest change in fat necrosis is a simple necrosis of the surface tissue, which extends gradually into the deeper fat cells. Fat splitting is subsequent to the necrosis and not its cause. At first the products are non-crystalline, but become so later. 12. The process progresses for but a few hours at any one point, the extension seeming to be limited by surrounding leucocytes. Absorption of the area is accomplished by leucocytes, and healing is by proliferation of connective tissue from the margins. Adhesions are seldom formed. 13. The foci become visible to the naked eye in three to five hours. They may disappear within 11 days, or persist for a much longer time, depending chiefly upon their size. 14. Fat necrosis by itself is not dangerous to the affected animal, and may develop while the animal shows no observable symptoms.

PÆDIATRICS.

Uncomplicated Myocarditis in Children.

George Carpenter (*Lancet*, May 30th) records four cases, three of them fatal. Myocarditis has been divided into parenchymatous and interstitial, the lesions being either diffuse or localised. These two forms may occur independently of each other, but frequently co-exist in the same case. These lesions can seldom be diagnosed during life, though their existence may be suspected. Parenchymatous myocarditis may end in recovery, as the first case here recorded shows.

Digitized by Google

Interstitial myocarditis may be acute or chronic, and is looked upon as being rare. The acute form is generally due to pyæmia from bone or joint disease; the common sequence is the formation of an abscess in the wall, which either ruptures into the pericardium or into the endocardium, producing an acute cardiac aneurism. Acute rheumatic myocarditis must be here mentioned, for although the changes in the heart muscle are usually parenchymatous, yet a certain degree of interstitial change is usually found as well. Acute myocarditis has been found in connection with old and with recent valvular disease and with pericarditis. It has also been met with in scarlatinal pericarditis. Small fibroid patches are frequently seen scattered through the heart muscle in fatal cases of mitral stenosis. Chronic interstitial myocarditis is sometimes associated with adherent pericardium; but it is not in every case of hypertrophical heart from adherent pericardium that such changes can be found microscopically. Fibroid patches may also be due to occlusion of the coronary arteries, syphilitic or otherwise. Syphilitic myocarditis, in the form of solitary or multiple gummata, has been recorded in infants and young children; syphilis may also set up an interstitial myocarditis. Case 1 was a case of post-diphtheritic myocarditis, which ended in complete recovery. Case 2 was of doubtful origin, possibly rheumatic, and was fatal; histological examination showed it to be an acute interstitial myocarditis, the heart weighing about three times as much as normal. Case 3 was undoubtedly rheumatic in origin. Post-mortem, the heart was much enlarged, and showed here and there throughout the muscular walls of both ventricles circumscribed yellow dots and strize. These were due to fatty degeneration of the muscular fibres. Case 4 was one of extensive focal myocarditis, possibly of rheumatic origin; no history of syphilis. The wall of the left ventricle showed, scattered throughout, white areas, some rounded and some long and narrow. The pericardium was normal; the endocardium was much thickened; the valves were normal. Histologically these areas consisted of fibrous tissue.

Acholia.

W. B. Cheadle (*Lancet*, May 30th, 1903), in a clinical lecture on this disease, describes five cases occurring in children. "Acholia," as the term implies, means an absence of bile in the stools, without jaundice and without any apparent obstruction in the bile passages. This affection has been frequently noted by clinical observers without any special appreciation of its pathological significance. One form occurring in children has been described by Dr. Gee, under the name "coeliac disease," owing to the flaccid distended abdomen, he looking upon it as a form of chronic indigestion. A similar condition of the stools is found in "sprue," and in the so-called white diarrhœa of the tropics. A condition of colourless stools has been described by Dr. Walker, of Peterborough, as occurring in two cases of complete obstruction of the pancreatic duct. These cases occurred in adults, one having lasted uninterruptedly for a period of 20 years.

The stools vary in appearance, from a pale straw colour to absolutely white; at the same time there is no jaundice and no bile in the urine. In this country white stools occur usually in children under five years of age, but by far the most often under two years of age. In a typical case the fæces are not merely pale, but are a dirty grey, or absolutely white, without a shade of yellow or brown; usually they are slightly loose, like oatmeal gruel; sometimes they are like a mass of white paint; further, they are distinctly greasy in appearance, obviously containing fat. Other characteristics are—they are always offensive, often stinking, and are larger than normal. The onset is usually abrupt; there is then marked impairment of general health. At first there may be a rise of temperature, but after a time it falls to normal or sub-normal; the appetite fails, and the child becomes pale, languid, and feeble; the abdomen becomes full and flaccid, and in prolonged cases the patient wastes steadily to emaciation. These well-marked cases are not common. An analysis of the stools shows that the fat is enormously increased, varying in different cases from 24 to 63 per cent. of the total solids, the normal being about 12 per cent.; in the most marked cases both bile pigment and bile acids are absent; no definite lesion is found post-mortem. Dr. Gibbons states that the only abnormal condition found is some enlargement of the spleen with anæmia; the liver is normal in appearance. The suggestion that the absence of colour is due to the want of pancreatic secretion is negatived by the absence of bile acids in the stools and the production of a brilliant green colour on administering ox-gall. The causation is obscure; the frequency with which it arises during dentition would point to that being the cause. The treatment should be directed to lessening the work of the liver, by giving fats in a pre-digested form, as in pancreatised milk gruel or pancreatic emulsion. As for drugs, bismuth and opium should be given if the stools are loose, and salol as an antiseptic. The chlorides of arsenic, iron and mercury seem to do good. Brandy in doses of 20 to 60 drops is a useful hepatic stimulant.

The Value of Lumbar Puncture in Meningitis.

Warrington (*Pædiatries*, February, 1903) contributes a short article on this subject, and gives brief records of three cases illustrating the value of this method of diagnosis and treatment. 1. A well-nourished child of eight months was admitted to hospital with marked retraction of the head and neck, constant crying and vomiting. The evening temperature was 101°, pulse 126. There was no squint, no paralysis; optic discs normal. A provisional diagnosis of meningitis was made, and lumbar puncture performed. A slightly cloudy fluid containing flakes of lymph was obtained; the centrifugalised deposit showed a considerable number of cells of multinuclear form and a few lymphocytes. No micro-organisms were recognised, and tubes of serum, gelatine and agar remained sterile. The child gradually wasted; vomiting and occasional fever persisted. Lumbar puncture was performed several times, and after each operation improvement followed. The improvement finally became maintained, and the child was discharged free from any acute symptoms. The fluid removed by puncture gradually became clearer, and the multinuclear forms were replaced by lymphocytes. 2. A child, aged 16 months, was admitted with marked retraction of head and neck, and almost opisthotonos, the lower limbs rigidly flexed; Kernig's sign was present. The temperature was of an irregular type. A nasal purulent discharge was present. Lumbar puncture obtained a turbid fluid containing masses of pus. The multinuclear type of cell greatly predominated, and the diplococcus intracellularis of Weichselbaum was found. The child died ten days later, and the characteristic purulent meningitis associated with the organisms was found. 3. A child, eight months old, said to have been quite well up to a few days before admission, became feverish, vomited several times, and then convulsions set in. On admission the child lay in a drowsy condition, limbs rigidly flexed, fontanelles tense and prominent. Lumbar puncture provided a turbid fluid, from which a pure culture of staphylococcus albus was obtained. Post-mortem examination revealed a purulent meningitis.

Digitized by Google

CORRESPONDENCE.

London.

(FROM OUR OWN CORRESPONDENT.)

The Royal Army Medical Corps—The Royal Society—The King's Sanatorium—The Health of Pretoria—Leprosy in India—Cancer of the Stomach.

THE Army Medical Service, under the Royal Warrant of 1902, gives greatly increased advantages to officers, and offers an attractive career to young medical men. Among other provisions, the new Warrant secures sufficient pay to enable the officer to support himself from the time he first joins the service; provides increased emoluments to officers in charge of hospitals or to those selected for special duty; supplies opportunities for post-graduate study at the Royal Army Medical College; ensures advancement in virtue of professional merit, and not only by order of seniority; gives permission to retire at the end of three years' service with a small annual honorarium, and to join the reserve; holds out the prospect of obtaining a gratuity of £1000 on retirement after nine years' service, and a pension of £1 a day on retirement after 20 years' service. A competitive examination for commissions in the corps will take place annually in January and July before a board of examiners, consisting of eight physicians and surgeons appointed from the hospitals and medical schools of the United Kingdom. If the candidate is placed he is gazetted as a lieutenant on probation, and passes into the Royal Army Medical College, where he receives a two months' course of instruction in hygiene, bacteriology, military surgery, and military medical administration. He subsequently receives a further three months' course of instruction at Aldershot on the military part of his future duties. Officers who, on entering the corps, hold, or have an immediate prospect of holding, a resident appointment at one of the large general hospitals, may be seconded for one year while holding such a post. They are thus afforded the privilege of retaining their places in the army list, and the time of tenure of the appointment is counted as service towards promotion and pension, but they do not receive army pay. On leaving Aldershot the lieutenant is appointed to a military hospital, and subsequently will proceed to India or to one of the colonies. He is permitted to engage in civil practice, and this in many stations yields a considerable increase of income. At the end of three and a half years after joining the Royal Army Military College, the officer, after passing a practical examination in the military duties of his rank, is promoted to captain. On completing his tour of three or five years' foreign service, he returns home and is posted to the Royal Army Medical College for a term of six months' study. At the end of this course of instruction, the captain is ready for his examination for promotion to the rank of major. An officer who shows special proficiency at this examination may gain acceleration of promotion to the extent of three, six, twelve or eighteen months, and may be subsequently selected to hold special appointments at various army centres, receiving increased pay at the rate of about £45 per annum. After having attained the rank of major, at the end of 10½ to 12 years' service, he proceeds to his second tour of service abroad, when various responsible and important appointments become open to him. After the 15th year of service, the officer has to undergo a last examination, which deals with purely military subjects. After passing this examination he becomes eligible for selection to the rank of lieutenant-colonel. Officers of this rank are appointed to prominent positions on the staff of the Director-General or to the charge of large hospitals; they may also earn a considerable increase of pay, amounting in some cases to as much as £180 a year. Colonels are selected from lieutenant-colonels, and these on selection are further promoted to the rank of surgeon-general. The Director-General is appointed from the surgeon-generals. The officers of the corps are eligible for military honours and rewards at the hands of the Sovereign, and there are six honorary physicians and six honorary surgeons to the King appointed from among them. The following are examples of emoluments which may be obtained:—Captain (say of 10 years' service): Pay and allowances, £474 19s 11d; specialist pay, £45 12s 6d; charge pay, £45 12s 6d—£566 4s 11d. Major (say of 10½ years' service): Pay and allowances, £586 4s 3d; specialist pay, £45 12s 6d; charge pay, from £91 5s to £182 10s—£814 6s 9d. Lieutenant-colonel (say of 18½ years' service): Pay and allowances, £713 19s 3d; charge pay, from £91 5s to £182 10s—£896 9s 3d. If selected for higher rate of pay, say after 23 years' service: Pay and allowances, £805 4s 3d; charge pay, £182 10s—£987 14s 3d. If commanding a depôt of the Royal Army Medical Corps extra pay of £92 per annum is given. Professors at the Royal Army Medical College receive pay and allowances of rank, plus £200 per annum. Assistant professors at the Royal Army Medical College receive pay and allowances of rank, plus £80 per annum. Officers can retire at the following periods and obtain the several gratuities and pensions enumerated:—Gratuity: After 9 years' service, £1000; after 10 years' service, £1250; after 15 years' service, £1800; after 18 years' service, £2500. Pensions: Major or lieutenant-colonel, after 20 years' service, £1 per day; after 25 years' service, £1 2s 6d per day; after 30 years' service, £1 5s per day; lieutenant-colonel of the higher grade, after 3 years or after 30 years' total service, £1 10s per day; colonel, after 3 years' service, £1 15s per day; surgeon-general, after 3 years' service, £2 per day.

The conversazione of the Royal Society was held on May 15th, and was attended as usual by a large number of Fellows and guests. There were many scientific exhibits, but only two or three of strictly medical interest. Among the latter was a specimen of the trypanosoma, exhibited by Dr. Castellani, who found it in the cerebro-spinal fluid of a patient in Uganda, suffering from sleeping sickness, a disease which he believes to be produced by this organism. Dr. Alan Green, of the Government Laboratory, exhibited a series of cultures from vaccine lymph, half of which had been treated with glycerine and the other half with chloroform. The differences between the two were very marked; those treated with glycerine presenting colonies of extraneous organisms up to three or four weeks, whereas after six hours none were perceptible in the series treated with chloroform. It is stated that the efficacy of the lymph is in no way impaired, and, should this be confirmed, chloroform lymph will probably ere long replace the glycerine lymph at present in general use. Dr. Macfadyen demonstrated his method of extracting intracellular toxins by means of liquid air, and Mr. S. G. Shattock, in conjunction with Mr. C G. Seligmann, showed a preparation from a specimen of a true hermaphrodite fowl in which dissection revealed a left oviduct and two reproductive glands, one being testicular and containing spermatozoa, and the other consisting of inactive testicular tubuli and an ovum.

A site for the King's Sanatorium has just been acquired from Lord Egmont at Lord's Common, Esse-bourne, which is six miles south of Haslemere, and

Digitized by Google

about three from Midhurst. The property covers an area of 150 acres, and contains an extensive pine wood. Towards the south, and sheltered by the trees, there is an open plateau, which stands about 450 ft. above sea-level, and commands an extensive view of the South Downs. Upon this the sanatorium will be built. The ground gradually rises to the north, so that complete shelter will be afforded from the north and east winds, while to the west, and immediately adjoining the site of the building, there is an extensive open common. There is an abundant supply of water, the purity of which has been ascertained by careful bacteriological and chemical tests. The plans for the building are now being prepared by Mr. Percy Adams, the architect appointed by the Advisory Committee.

From the report for 1902 recently issued by the Medical Officer of Health, it appears that the population of Pretoria during the year amounted to 22,971, of whom 13,000 were Europeans, the remainder belonging to the coloured races. The birth-rate among Europeans was 36·16 per 1000 of the population, and among the coloured inhabitants 22·60. The death-rate for both classes was about the same, and averaged for the two 21·15 per 1000 of population. The system of infectious disease notification is in force, and during the year 477 cases were reported, of which a large proportion were enteric fever. Leprosy is so common as to demand an asylum, which is situated at some distance from the town and at present contains about 250 patients.

On May 15th, Mr. Jonathan Hutchinson reported to a meeting of the members of the London Polytechnic the results of his recent tour through India for the investigation of leprosy. The chair was taken by Lord George Hamilton, the Secretary of State for India. In his opening remarks the chairman stated that the Indian Government took a very close and active interest in the leprosy question, and were deeply gratified to find that in recent years the disease had largely diminished. Twelve years ago a special commission had been appointed to investigate the causation of the disease and to suggest measures of prevention. The report furnished by that commission was valuable, but its conclusions were not unanimously accepted. He wished his presence to be understood as simply an evidence of the personal interest which, as head of the Indian Government, he took in such an important question, and not as indicative of any desire on his part to associate himself with any one theory of causation more than another. He sincerely hoped that the outcome of Mr. Hutchinson's investigations might contribute to the happy result of the extinction of leprosy in India. Mr. Hutchinson, in the course of an interesting and lengthy paper, stated that he went to India with a perfectly open mind, but with a strong conviction that the fish theory was the only one capable of explaining the spread and prevalence of leprosy. Though he denied that leprosy was communicable by the touch or by the breath of a leper, he admitted that it could be conveyed by taking food from the hands of a person suffering from the disease. It was now generally admitted that leprosy disappeared before advancing civilisation, but it was hardly creditable to the science of the 20th century to conceal its ignorance under such a wide generalisation. It was perfectly true that the disease receded under many conditions of advancing civilisation, but it did not do so invariably, as was evidenced by its continued prevalence in the West Indian Islands, in Spain and Portugal, and in Cape Colony. A thousand facts made it certain that leprosy had nothing to do with personal cleanliness, house accommodation, or an abundant supply of wholesome food. The one factor of importance in its dissemination was the use of imperfectly preserved fish, and so far as his experience had taught him there was no part of India in which the fish theory of causation could not be maintained. There was no locality which was absolutely free of the disease, its average prevalence throughout the whole population being about 5 per 1000. Mr. Hutchinson then related the results of his personal investigations in the sub-Himalayan districts, where it was alleged the fish theory could not be sustained because the inhabitants of these mountainous districts were beyond the reach of fish as an article of diet. He satisfied himself, however, that fish were taken from all the mountain streams and formed part of the daily dietary in all parts of the country. To show how unreliable were the statistics published on the subject in India, he related his experience at the Nikoda Leper Asylum, where he had been positively assured there were 40 male lepers who had never tasted fish. He asked permission to interrogate the inmates of this asylum separately through an interpreter. The first leper asserted that he had never eaten fish because he disliked it, but the remaining 39 did not even pretend that they had never tasted it. The general conclusion at which he arrived was that leprosy prevailed in connection with the religious persuasions which enforced fish-eating, and in the localities where fish production and fish consumption were excessive. He expressed the opinion that the removal of the salt tax in India would be an incalculable boon to the community, and that it would tend more than any other measure to diminish the prevalence of leprosy. The price of salt was doubled by the present tax, and it was, in his opinion, insufficient to abate the tax only as regarded fish factories. The chairman, in responding to a vote of thanks proposed by Sir William Broadbent, admitted that several of the objections urged against the fish theory had been broken down by Mr. Hutchinson's researches, but he was afraid the duty on salt must remain until other sources of revenue were raised. He had always felt that the heavy duty limited consumption and affected the various industries connected with the curing of fish, but he never before realised that there could be any connection between the salt tax and the origin and development of leprosy.

In a recent address delivered before the Leicester Medical Society, Mr. Mayo Robson drew attention to partial gastrectomy and gastro-enterostomy as valuable surgical means for the relief of malignant disease of the stomach. He quoted a series of remarkable cases in which the adoption of one or other such method of relief had resulted in either marked prolongation of life in comparative comfort or in apparent cure. He entered a strong plea for early operation in suspected cases, and expressed the opinion that whenever a patient at or beyond middle age complained of indefinite gastric uneasiness, with loss of appetite, pain and vomiting, followed by progressive loss of weight and energy, and associated with anæmia, an exploratory operation was fully justified on the assumption that commencing cancerous disease might be the cause of the symptoms. Should this preliminary diagnostic procedure confirm the suspicion of malignant disease, the subsequent steps to be taken should depend upon: (1) the position of the growth; (2) its extent; (3) the presence or absence of adhesions; and (4) the presence or absence of secondary deposits in the lymphatic glands or elsewhere. If the growth involved the cardiac orifice, gastrectomy must be performed. In cases where it proved to be too extensive for removal, and where gastro-enterostomy was impossible, jejunostomy might be resorted to with some prospect of a satisfactory result. Where, on account of adhesions, secondary deposits, or extreme debility of the patient, the growth could not be removed, gastro-enterostomy

Digitized by Google

was indicated, by which means such an improvement might be effected on the patient's general health as to render a subsequent radical operation possible. When the disease was entirely limited to the stomach without serious involvement of glands, the growth should be entirely removed, provided the patient were sufficiently strong to bear the shock of such a radical operation. Mr. Mayo Robson is of opinion that, if taken early enough, the thorough removal of the disease from the stomach may result in as much and as permanent relief as the corresponding removal of malignant tumours from the breast.

Victoria.

(FROM OUR OWN CORRESPONDENT.)

The Hospital Volunteer Help League—Lunacy Reform—Women's Hospital.

FOR some time past it has been felt that the cost of collecting subscriptions for the various hospitals has been far too great. Out of every £100 collected for the Eye and Ear Hospital £32 1s 2d has been expended, and the chairman, in addressing the contributors at the annual meeting, said the reason for such an expenditure was due to the system introduced by the treasurer, which had been the means of inducing people to subscribe who would never otherwise have subscribed. Collectors had travelled thousands of miles, visiting every town and village, and so they had managed to keep the hospital free of debt, but, of course, at rather a big outlay. The Melbourne General Hospital collection had cost £13 in £100, and many other hospitals are higher even in their expenditure. It was shown that in the case of the Melbourne Hospital that the expenditure was incurred in collecting from 6000 people in the metropolitan area. This leaves a great number of people who have given absolutely nothing to this hospital. The Hospitals Volunteer Help League has recently been founded, and the chief objects of it are: (1) Voluntary service: (2) reaching by a well organised system of collections the people who never subscribe because they are never asked; (3) the regular collection of even the smallest subscription; (4) the liquidation of the office expenses of the central council by voluntary subscription. It is proposed to work on similar lines to the League of Mercy which in London a few years back had an enormous success, increasing the subscribers to hospitals from 80,000 to 300,000. Something ought to be done to improve the financial positions of the hospitals in this State and to increase their efficiency, as it is well known by all medical men that even now there is not enough hospital accommodation for the public.

Lunacy reform is the latest agitation, and deputations of ministers, professional men and public men have been flowing in on the Chief Secretary urging the necessity for immediate and drastic reform in the administration of the Lunacy Department. The Minister's reply has been an assurance that an amending bill had been agreed upon by himself and colleagues, and which he hoped would give satisfaction to everyone. He could not specify the exact contents of the bill until it was brought before Parliament, but he had been materially helped by the advice of Drs. Joske and Jamieson, two of the medical visitors to lunatic asylums.

The election of honorary medical officers to the Women's Hospital will take place on September 8th, and the whole of the present hon. medical officers are sending out cards asking for re-election *en masse*. This must have a deterrent effect upon any would-be candidates, and as everything is going on smoothly at this hospital now, it is just as well that the present staff be left intact.

Tasmania.

(FROM OUR OWN CORRESPONDENT.)

The Outbreak of Smallpox at Launceston.

THE chief topic in Tasmania at present is smallpox, and from every point of view the subject is discussed until one becomes thoroughly tired of smallpox gossip. The main facts of the epidemic are as follows:—On June 3 a man named Duggan was admitted to the Launceston General Hospital suffering with a thick measles-like rash, and died three days after his admission from what was regarded as hæmorrhagic scarlet fever. Thirteen days after his admission, Nurse Cash, who had nursed him, developed a severe purpuric rash and died on the third day, there being extensive mucous and subcutaneous hæmorrhage. In the next day or two another nurse, two porters, and a laundrymaid took ill, then a few days later the house surgeon sickened. On June 22 the Mayor heard that smallpox was in the city, although no notification had been made to the Local Board of Health, and on inquiry then being made by the Medical Officer of Health, Dr. Wilson, several cases were found in and around Margaret-street, and also in the hospital. Further inquiry revealed the fact that suspicious cases had been occurring in the town as early as the end of May, and that convalescents had been walking about with the scabs still on their faces. Since then some 40 cases have developed in town, as well as at Lefroy, 30 miles, Mowbray, and Ravenswood, three miles distant from Launceston. All these cases, it is satisfactory to know, are to be traced to direct contact with town or hospital cases.

The general hospital was closed, except for the most urgent cases. The isolation hospital at Verulam was then found to be unprepared for the admission of patients, so the infected houses were quarantined, the quarantine including all the inmates, and the M.O.H. was appointed to attend on smallpox cases. Unnecessary delay then took place in the preparation of the isolation hospital and "contacts" quarters, so that at first all these had to be isolated in their own homes. At length, however, they were completed, contacts being isolated at Glen Dhu and patients at Verulam, some two miles distant from one another. A few cases were left in town as being too ill to be moved. Two of the earlier hospital cases were of the hæmorrhagic type, death occurring on the third day, but many of the cases, apparently in the vaccinated, have been of a mild character. So far, however, I have no full and reliable statistics available on this point. The steps taken to deal with the outbreak have been:—(1) Isolation of smallpox cases and of "contacts" of the first degree at their own homes and subsequently at Verulam and Glen Dhu; (2) vaccination of all "contacts"; (3) disinfection of infected houses, clothes, etc.; (4) closing of infectious diseases wards at the general hospital; (5) vaccination as provided by the Government and private practitioners, a large number of people availing themselves of this vaccination and re-vaccination, although at first there was a great scarcity of lymph, and most of this was unreliable; (6) the State schools were closed for a time, but have again reopened; (7) compulsory vaccination and re-vaccination was enforced upon all travellers leaving Launceston by road and rail, and passes showing that they were non-contacts were demanded. These measures were foolishly imposed by the Central Board of Health, and removed by the Chief Secretary, Dr. McCall.

When one hears that such vaccination was frequently done at the railway station, and that no proper care was taken as to the success of the operation or the nature of

Digitized by Google

the case operated on, one can appreciate the annoyance caused and the way in which vaccination was brought into disrepute. Notwithstanding the want of combination (which resulted from lack of supreme control by one officer), there was every indication that the epidemic would soon be stamped out, when a recrudescence took place, due to two distinct causes:—1. The workmen at the smallpox hospital were not isolated or kept under supervision, but were permitted to travel to and from the town, even in public 'buses. Neither they nor their families were vaccinated. 2. The special guards at the quarantined houses were similarly neglected.

Several cases had developed at the end of July and the beginning of August which can be traced to these two sources, and there is much probability that the contagion has gained a much wider dissemination. It is alleged that the central authorities were warned about this neglect, and that it was due to the fault of their officers. On this point I have no trustworthy information, so must suspend judgment. There is no doubt, however, that on the central authorities rests the blame of the isolation of Launceston. Trains and steamers were closed except to travellers showing certificates of successful recent vaccination (subsequently the word "successful" was omitted), and in the dead of night the roads leading from the city were blocked by police patrols without the courtesy of warning either Mayor, citizens, or the Local Board of Health. Dr. Wilson, going to the smallpox hospital to see a very serious case in consultation with Dr. Barnard, the resident, was stopped by the police, and only passed by defying the law. Supplies to the hospital were blocked. Milkmen, grocers, butchers, bakers were stopped on their rounds and prevented from supplying their customers. Yet persons from affected quarters of the town — nay, even from houses next door to smallpox patients—were allowed to leave, provided that they showed a certificate of vaccination; and all this although the same central authority sent by the Premier a message of fullest confidence in the Local Board. Needless to say, public indignation was aroused, and an imperative demand was made to the Government to remove the blockade and to suspend the rule of the Central Board, which had entirely forfeited the confidence of the public. As the result of the action of the citizens and the Local Board, the Government has removed the patrol from the roads, and has sent for Dr. Elkington (an officer recommended by Dr. Gresswell), of Melbourne, to advise as to the proper measures to be taken in dealing with the epidemic. This step will give satisfaction to all parties, although, as will be gathered from my report, something more than advice is required—and that is, control. It might also be pointed out that there are in the State several medical men who, if granted full powers, had sufficient knowledge and ability to deal with the position.

The defence against smallpox practically rests on two main factors:—1. Vaccination, including re-vaccination. 2. Isolation of patients and contacts. Needless to say, both of these were lacking in Tasmania, inasmuch as our Central Board of Health, which has really existed but as a pretence, has never made any serious attempt to deal with the administration of the public health of the State. Nor was there lack of due warning of the responsibility that rested upon Government and Board. Dr. Maddox, more than 15 years ago, urged upon the then Government the need of proper administration and of at least two permanent medical inspectors to superintend such administration. Resolutions dealing with public health administration and isolation hospitals were presented to Government by a conference of Boards of Health some years back, and a year or two ago Dr. Maddox, this time as President of the British Medical Association, spoke strongly on the subject, pointing out the absence of administration of public health matters, the neglect of vaccination, etc. Not the slightest notice was taken of any of these warnings. The consequence is that the epidemic of to-day has found a people unguarded, a Government unprepared. It is stated here that an enquiry is to be held as to the cause of the outbreak. If so, it would be but fitting that the enquiry should be extended into the neglect of previous Governments and central health authorities to administer our health system. To start with, the authorities have always failed to grasp the necessity of having a competent medical man to have the control of the State health administration, either as permanent paid head of the Central Board or as Chief Government Medical Adviser. Such an officer was, and is, absolutely necessary. Without him the Central Board was but a useless piece of machinery, and in addition, as the present crisis has proved, it was worse than useless—it was dangerous to individual, to city and to State.

I have no hesitation in affirming that had such an officer existed, the present smallpox epidemic with its history of continual muddle would never have occurred. Now, when the mischief is done, there is a public outcry, directed to a certain extent against the medical profession here, about the outbreak of the disease and the imperfect attempts to check it. Let the public remember that the culpable neglect of years cannot be remedied in a day; and if any are to be blamed, blame the authorities who have disregarded the advice given to them. It was chiefly on the instigation of the Central Board of Health that the present vaccination law, with a "conscience clause," was put upon the statute book, and only as the result of pressure and promises of careful administration did members of the profession agree to support it. Yet, from the day the bill became law, the Central Board never made any proper attempt to administer it. Had this been properly carried out, over 90 per cent. of young Tasmanians could have been vaccinated. It is to be hoped that if in the future the "conscience clause" is to remain, provision will be made for a "re-vaccination clause," and for the proper administration thereof. Although the Government orders the notification of infectious diseases by medical men (under a heavy penalty for neglect), yet no attempt is made by central or local authority to isolate, or provide isolation, though it is one of the primary maxims of preventive medicine that, if not combined with other measures, notification is of no value in combating communicable disease; to be of any use, the intelligence so obtained must be acted on. Not only has the central authority neglected to provide or to insist on the provision of proper isolation hospitals and quarantine stations, but it has actually countenanced improper and dangerous schemes in Government institutions, or, at any rate, failed in its duty by allowing such schemes to mature, *e.g.*, the infectious diseases wards attached to the Launceston General Hospital, which were denounced at their very inception as fraught with danger—a denunciation proved to be only too true by the variolus contagion which they disseminated. Medical men have repeatedly asked for and pointed out the need for proper bacteriological examinations for the use of themselves and public health authorities, and, notwithstanding their appeals, to-day Tasmania remains without any provision for the necessary routine examinations in cases of diphtheria, typhoid, anthrax, plague, etc. The Central Board of Health authorised the spending of large sums of money in the constant examinations of travellers from plague ports, in the extermination of rats, etc., although there was no provision for scientifically diagnosing plague by means of bacteriological

Digitized by Google

examination even if it had shown itself. Knowing, therefore, as I have done, the absolute rottenness (for that is the only word that meets the case) of the State health administration, I have long been expecting such a *denouement* as has occurred. Let us hope that it will teach a lesson, bitter as it may be, which no milder form of tuition would have succeeded in bringing home to the Government.

The following is a summary of some of the chief points bearing on the situation:—1. There was failure to recognise the disease, a very difficult thing to do in the case of the malignant hæmorrhagic type which puzzled the hospital staff. Yet it seems strange why, if some of the early cases were not diagnosed correctly, they were not at any rate recognised as cases of a very suspicious and infectious nature, isolated and reported to the local board. The general hospital should never have been burdened with infectious diseases wards. They have proved to be, as they were denounced at their opening they would be, a menace to hospital and country in the spread of disease. 2. There was absence of proper provision for isolation of the sick and the contacts at an isolation station. As a consequence the patients had at first to be treated at their own homes, where also the contacts were isolated. Many of the houses so isolated being small, the propagation of the disease was aided by the close association of patients and contacts. 3. There was unnecessary delay in the preparation of the isolation hospital and contact station. 4. The isolation hospital and contact station might advantageously have been placed nearer to one another. 5. There was constant confusion between the authority and responsibility of central board and local board. 6. There was lack of supreme control by one medical man, at least six different medical men being engaged independently of each other. As a consequence many obvious and important matters of detail escaped attention. One medical man ought to have been in command, the others to work under his general superintendence. 7. It was certainly the duty of the central board to have recognised this defect and to have remedied it, even if the local board allowed it to escape notice. 8. There was neglect in allowing the workmen at the smallpox hospital to remain unisolated, unsuperintended, to pass in and out of town, and to remain with their families unvaccinated. Similarly, with regard to the special guards of smallpox houses. 9. Vaccination in the State had been almost entirely neglected for years. This neglect has been attributed to the "conscience clause"; but had the central authority taken any trouble to administer the Act, defective as it was, some 90 per cent. of Tasmanian children could have been vaccinated. 10. There was at first no proper supply of reliable vaccine lymph, and even now there is a great deficiency in the supply. 11. As soon as a proper supply of lymph was obtainable there was a great demand for vaccination, people readily recognising its value. 12. The local authority has endeavoured to do its best to grapple with the situation, and has recognised the necessity of carrying out the principles of vaccination and isolation, but its efforts have been handicapped to some extent by some of the above-mentioned conditions, and by its own Medical Officer of Health being in quarantine, as no proper provision has been made for the lack of his skilled advice. 13. It was the duty of the central authority, if not satisfied that the recognised principles of isolation of the patients and "contacts" were being properly carried out, to have instructed a competent officer to supervise such work. 14. Instead, it imposed an absurd system of urban quarantine, with, what was worse, useless rules of exempts to recently vaccinated persons only. 15. These silly regulations annoyed and confused the people, and served to bring the principles of vaccination into contempt. They will, no doubt, furnish the anti-vaccination party with telling arguments. 16. The central board further irritated the people, more especially the business community, by continually altering the regulations without due notice being given. 17. Much confusion and irritation have been caused by the varied quarantine regulations of the different States enforced against Tasmania. 18. It is advisable that the Federal Government should consider and draw up a system of Federal quarantine under the full powers granted by the Constitution.

I have purposely abstained from dealing with the probable origin of the disease, as I have only hearsay evidence to go upon, and as careful enquiry is being made on this point by Dr. Elkington.

The Medical Profession and the Australian Natives' Association.

We have received the following letter for publication:—

(To the Editor of the Australasian Medical Gazette.)

Sir,—Our attention has been directed to articles which have appeared in the Gazette from time to time reflecting on the A.N.A., and as they are so unfair in their tone, and have apparently influenced your readers in the medical profession to the prejudice of the A.N.A., it has been thought advisable to state the facts from our point of view.

Apparently the main points of objection urged against the A.N.A. are four, namely, that we "sweat" the medical profession; that we have enrolled in our ranks as benefit members, a large number of men of wealth and importance who avail themselves of the services of the medical officers of the association; that we are a political society; and that we are not a legitimate friendly society.

Were it true that the association generally "sweated" its doctors, we could not but admit the fairness of boycotting us; but we indignantly deny the charge.

The A.N.A. of Queensland is in possession of letters received from every medical officer attending our branches stating that they each and all have personally no complaint against the A.N.A.; that the fees proposed by them were accepted by the branches without cavil; and "that the members on their lists do not differ in any appreciable manner as to wealth and importance, or in other respects, from members of other benefit societies attended by them." As regards Queensland, at any rate, this is conclusive evidence that objection number one is not true. It has also been denied by the associations in the other States that it is true of them, and they also challenge you to give your proofs. We have carefully scanned your columns, but have been unable to find any proof of the assertion as to sweating as against the A.N.A., except possibly in the case of one or two southern branches. But they are always associated in your condemnation with lodges of other societies, showing that, were the allegations true, the A.N.A. should not be singled out specially for condemnation; nor (if true) is it fair to boycott the whole of the association for the alleged "sweating" of a few branches. Your book on "The Sweating of the Medical Profession by the Friendly Societies of Australasia" is full of instances of alleged "sweating" as against all other friendly societies, but the A.N.A. (except in three or four lines) is not mentioned. Why, then, is the A.N. Association singled out for special boycott?

Digitized by Google

The second objection urged against us is that we have enrolled in our ranks, as benefit members, men of wealth and importance who avail themselves of the services of the medical officers of the association. We know this statement to be absolutely incorrect, at any rate as regards Queensland; and the charge has been denied by the association in the other States. As I have already shown in the third paragraph of this letter, our medical attendants in Queensland also bear witness that our benefit membership does not differ in these matters, or in any other respect, from the membership of other friendly societies. It is quite possible that there are a few old benefit members of the older association (the Victorian) who are still on the books as benefit members, and in this respect these members are very much less in numbers than with the older societies. But the general secretary for Victoria writes that they do not receive medical benefits from the branch to which they belong. And, even if it were true of the A.N.A., it is admittedly more so of the other friendly societies in Australasia.

The third charge is that we are a political society. This also we deny. Our association is composed of members holding the most diverse political views. It does not follow that we are a political association because we occasionally discuss political questions. Political questions are very rarely discussed at our meetings, and only those of a national and non-party character are allowed to be debated. We are thorough believers in the "intellectual improvement" plank of our association, and hold the opinion that after the benefit society business is transacted at the meetings, our members are better occupied in discussing national, social, and other questions of the day than in learning rituals, lectures and ceremonies. But even if we were a political society we fail to see how this concerns our medical attendants. We echo the pertinent remark made at a public meeting in Sydney by the president of the New South Wales Friendly Societies Association that "if the A.N.A. substituted for ritual a national aspiration as the binding sentiment, why should the medical profession object to it?" We are still asking "Why?" We are pleased to know that numbers of the members of the British Medical Association hold the same opinion. If it is the intention of that Association to boycott all friendly societies who discuss or pass resolutions on political questions, we shall soon hear of at least two of the largest friendly societies (judging from reports of their meetings in the Sydney press) being so dealt with.

The fourth objection is that we are not a legitimate friendly society. As we are as much a benefit society as any other friendly society, with rates, payments and rules almost identical; and as we are registered and work under the same Act, and are subjected to exactly the same supervision by the Registrar of Friendly Societies, we cannot but think that this is a very unfair objection to urge against the A.N.A.

We attach hereto copies of letters from the Queensland Registrar of Friendly Societies, and from the Queensland Friendly Societies' Association, and would ask you to be good enough to print them with this letter.

Although we have not by any means exhausted the matter, I think the foregoing is sufficient to prove that the A.N.A. received unfair treatment at the hands of the B.M.A., as well as in your editorial and other columns. We have had nothing but the most friendly relations with our medical attendants, and the "boycotting resolution" of the Queensland Branch of the B.M.A. came on us as a complete surprise. We cannot but feel strongly the unfairness of passing this resolution without in any way asking us for our side of the question. Absolutely the first intimation we received of any difference between us was the resignation of one of our medical attendants. Evidently the B.M.A. are not believers in the old adage, *Audi alteram partem*, or they would not have taken the precipitate action we now complain of.—We are, etc.,

W. BOODY, President.
G. J. SEABROOK, General Secretary.
Brisbane, July 23rd, 1903.

We willingly print the above letter, as it enables us once again to place before the profession in Australia and the members of the Australian Natives' Association our reasons for refusing to recognise that association as one, in any sense, having a right to the services of any medical man at the ordinary lodge rates. We shall take the objections referred to in this letter *seriatim*.

1 and 2. We are accused of charging the A.N.A. unjustly with "sweating" the medical profession. We again reiterate that this association does "sweat" the profession. We do not deny that the A.N.A. may offer at the present time as good terms as the ordinary legitimate friendly societies; but we know what has happened in Victoria, and to-day the A.N.A. in that State pay their medical officers the lowest lodge rates. Further, the A.N.A. "sweat" the medical profession, because they deliberately pose as a superior kind of friendly society and seek to include in their membership the better middle classes and the upper class as well; that is, they endeavour to secure as members the classes of persons who are quite able to pay ordinary medical fees. But what we take special exception to, and one which places the "sweating" principle in the clearest light, is the fact that the medical benefits have been simply tacked on to the association to make it "go," and to enable it to secure and retain the members of the association. Mere "Australian national sentiment" is a poor means of holding together an association, and, as we know from the history of the movement in New South Wales, utterly failed to enable the A.N.A. to progress at all. But when the medical benefits, including sick pay, funeral donations, medical attendance and medicine at a cheap rate, were held up before the public as attractions to join the association, the medical men's services were being used merely as a "draw," and this we do, and shall continue to, describe as a means of "sweating" the profession in the worst form. The doctors are made to suffer financially to enable the A.N.A. to flourish and its officers to secure political and municipal influence.

3. We are accused of unjustly declaring the A.N.A. a political society. Anyone who has followed the history of this association and of its conferences knows quite well that our contention is perfectly true. This association may not favour any particular party, but it does seek to control public appointments and to influence the election of members of Parliament and municipal associations. In fact, it shows openly that its object is to secure Australia for the Australians, and thus secure for its officials all sorts of political advantages and positions of influence.

4. We have never denied that the A.N.A. is a legalised friendly society—that is, that it is a society registered under the Friendly Societies Act, and that its rules are in accordance with the requirements of that Act. But we repeat again that the ordinary friendly societies are founded upon a philanthropic basis, their objects being to help their fellow members in time of sickness and distress and death. They were originally founded for the working classes, and, as a purely gratuitous concession on the part of the profession, it was agreed that societies thus founded were entitled to some consideration on the part of the medical profession for attendance at lower fees than those ordinarily charged. But we repeat, this is a

Digitized by Google

matter which rests entirely on the generosity of the profession. The Australian Natives' Association is not founded upon any such principles, and we assert that it has no claim whatsoever upon the charity of the medical profession. There are plenty of friendly societies which provide medical attendance for the poor, and the profession, in refusing to have anything whatever to do with the A.N.A. as a medical benefit association, is doing no injustice to a single legitimate claimant for medical attendance at reduced rates.

In conclusion, we decline to admit that in defending the rights of the medical profession against the encroachment of medical aid associations of various kinds we have dealt unfairly with the A.N.A. With it as a political organisation we have no concern, but we shall continue to use our influence in helping the profession to fight against an association which tries to abuse a generous concession on the part of the profession, and make it a "catch" to enlarge its membership. We heartily congratulate the Queensland Branch of the British Medical Association in their attitude towards the Australian Natives' Association.

OBITUARY.

Henry Hayton Radcliffe, M.R.C.S. (Eng.), L.S.A. (Lond.), 1843, Ballarat, Victoria.

Dr. H. H. Radcliffe, one of the oldest medical practitioners in the State, who resided in Ballarat since the early days, died on July 19th, aged 83 years. His practice was one time estimated to be worth £5000 a year. The deceased gentleman, who was related to the late Cardinal Newman, was a native of Liverpool, England, and arrived in Victoria in 1852.

Francis McAree, M.R.C.S. (Eng.), 1848, R.N., Adelaide, S.A.

Dr. Francis McAree, R.N., died at Largs Bay, S.A., in the early part of this month. After concluding his medical course in Dublin he entered the Royal Navy in 1845, and for some years was medical superintendent to the training ship "Ganges." He was in charge of the naval hospital at Kingston, Jamaica, during the time that the outbreak of yellow fever was at its height. Having seen active service in the Crimean war, he was appointed staff surgeon, and received the Baltic medal, 1854-5. After spending some time on various naval stations he returned to England, and was offered the position of fleet surgeon, but had to decline on account of ill-health. Upon retiring from the navy he travelled extensively through various parts of Europe. In 1879 he came to Australia, and, except for a six months' visit to Europe, had lived in Adelaide ever since.

Frederick William Wright, Lic. Med. Board (of Toronto), Parnell, New Zealand.

Dr. Frederick William Wright died at Selwyn-terrace, Auckland, on June 24th. Some six years ago he retired from active practice, and two months ago took to his bed. The deceased was 78 years of age, having been born in London, England, in 1825. In 1837 his father removed with his family to Toronto, Canada. Dr. Wright studied at the Toronto University, and took his degree as a medical practitioner in 1857. In 1860 he came to Auckland to join his father-in-law, Dr. Stratford, in his practice. For over 36 years he was lodge doctor to the Oddfellows at Parnell. During the small-pox scare over 30 years ago Dr. Wright rendered good service to the city. The deceased leaves a widow and six children.

Edmund Raphael Kavanagh, L.R.C.P. and S. (Edin.), 1887, L.F.P.S. (Glas.), 1887, Dungog, N.S.W.

We much regret to record the sudden death of Dr. Kavanagh, of Dungog. He had been in failing health for some years, suffering from pulmonary phthisis, with repeated attacks of hæmoptysis. He had practised in different parts of this State, but for the last three or four years had settled at Dungog, where he was held in high esteem.

George Patrick Brown, M.B., B.S. (New Zealand, 1898), Dunedin, N.Z.

The death of Dr. G. P. Brown, senior house surgeon of the Dunedin Hospital, from scarlet fever, came as a severe shock to most people, owing to his short illness. As a tribute to his personal attractions and abilities, respectful reference to his death was made by the hospital trustees at their last meeting. The acting-chairman said "the institution had suffered a loss through the death of their late senior house surgeon, whose many excellent qualities, high professional ability and unswerving devotion to duty were well known to them all. He had fallen at the post of duty, but had left a splendid record of good work done in his profession, and a loving memory with everyone connected with the institution." An expression of deepest sympathy with his mother and the members of his family in their bereavement was passed.

Medical Matters in Parliament.

Vaccination.—The Vice-president of the New South Wales Executive Council, in reply to Dr. Creed, said that the advocacy of the merits of vaccination was not regarded as a suitable subject of specific instruction. It was not the duty of the Chief Medical Officer to bring to the notice of the people of the State the importance of being protected against smallpox by vaccination and revaccination; also to the safety of these operations when properly prepared lymph was used. It was the duty of the Chief Medical Officer of the Government to cause public vaccinators to be supplied with vaccine lymph on application being made to him, and vaccinators were kept so supplied. As soon as the epidemic in Tasmania became known, however, the issues ceased in order that supplies might be available for the protection of persons in immediate danger of infection should the disease spread to this State. Supplies of vaccine lymph were obtained from Dr. Nain's establishment at Hastings, Hawkes Bay, New Zealand.

Management of Asylums.—Mr. Kelly moved in the New South Wales Legislative Assembly that a select committee be appointed to inquire into and report upon the manner and method of treating the inmates in Newington and Rookwood Asylums. Several deaths had occurred under what might be termed as curious circumstances, but no inquests had been held. Proper attention was not given to the patients. The Minister for Lands said an inquiry into the working of our charitable institutions had been going on for some time past under the direction of Mr. Fegan. He asked the hon. gentleman to agree to the adjournment of the debate, and by the time it came on again the Government would be in a position to make a statement that might render the inquiry asked for unnecessary. The debate was adjourned.

The Protection of Infants.—A bill has been introduced in the New South Wales Legislative

Digitized by Google

Council by Dr. Mackellar. Though in principle the same as the measure brought in last session, it is more comprehensive, and contains provisions taken from the Imperial Act and the law in force on the subject in South Australia, Victoria and New Zealand. One clause provides stringent safeguards against the bringing of false charges as to paternity of children; and by clause 24 every person who wilfully refuses or neglects to comply with an order made against him, and attempts to leave the jurisdiction of the State, shall be deemed to be guilty of an indictable offence punishable by imprisonment with hard labour for a term not exceeding 12 months. Provision is also made that persons deserting their children in any other State, and coming to New South Wales, may be arrested here and dealt with under the Fugitive Offenders Act.

Public Health (Leprosy) Bill.—Mr. Affleck introduced into the New South Wales Legislative Assembly this bill, which provides that the Board of Health must send patients suffering from leprosy to a reserve set apart by the Government for the purpose. Under the principal act patients could remain in their private residences. The Minister for Education read a report from Dr. Thompson (president of the Board of Health), in which he said that in Norway, where leprosy was rapidly becoming extinct, the more prosperous classes were isolated in their own homes under due supervision, and those of the poorer classes, who were isolated in lazarets, were allowed to visit their homes periodically. The bill was passed without amendment.

Regulations at the Adelaide Hospital.—In the South Australian Parliament the Chief Secretary informed Mr. Archibald that he would ask the Adelaide Hospital Board for a report concerning the City Coroner's remarks on the alleged non-observance of certain rules and regulations by the Adelaide Hospital medical staff.

Medico-Ethical and Medico-Legal.

Brockwell v. Long Tunnel Gold Mining Company.—This action was commenced on Friday, July 24th, in Melbourne, before Judge Hamilton and a jury of four. Briefly, this case is as follows:—The plaintiff, Charles Brockwell, an engineer employed in the mine, following his occupation on the day of the accident, May 29th, 1902, had occasion to go down to the 2000 ft. level, and at the 700 ft. level the cage, according to plaintiff, struck the bars or gates at that level violently, and he was thrown down in the cage. (The engine-driver, braceman and plaintiff were aware that the gates or bars were drawn at this level before the plaintiff entered the cage.) According to plaintiff's evidence, he was thrown on to his knees and was assisted out of the cage by a fellow employee. He rested a little while, and then got into the cage again and went down to the 2000 ft. level. He was there working for about three-quarters of an hour, and then went home. At that time he was feeling bad in his back and went home to bed for two days. He did not send for the doctor, but sent his wife to him, and he gave him a liniment to rub his back with. He resumed work three days afterwards and worked until August 13th, when there was an explosion of acetylene gas, in which he got burnt. This accident was due to his own negligence He was laid up for 14 or 15 days and again went to work for about three weeks, when he caught cold and had bronchitis. He had not done any work since. Dr. James Ramsay Webb examined plaintiff. His opinion was that he was suffering from traumatic neurosis. He had tender spots along the spine, distinct tremor of the tongue; his manner was nervous; he had also tremors of the hand, particularly the right; his walk was uncertain. He was suffering from two diseases: first, granular kidney; second, traumatic neurosis. He had no hesitation in saying he had Bright's disease. His urine was of low specific gravity and contained albumen. Dr. Andrew Herman said he had examined plaintiff. He had trembling of the right hand, also trembling of the tongue. He could always elicit pain on pressure in one particular spot in the spine. He tested his reflexes. They were normal, with the exception of the cremasteric, which was absent. He could find no defect in his gait as he walked him across the room. There was no giddiness when he closed his eyes, and he made him turn round. The symptoms he complained of were headache, pain in back, loss of sleep, muscular weakness, speedy fatigue when doing anything, loss of sight when reading. There was no evidence indicating any chronic disease, or any advanced kidney disease. He found albumen in his urine. In his opinion he was suffering from neurasthenia, due to the accident. He disagreed with Dr. Webb. He had not got Bright's disease. Dr. Henry O'Hara stated in his opinion the plaintiff was suffering from spinal sprain. He had tremor of the tongue on the right side, also of right hand, right leg smaller than left by three-quarters of an inch. His reflexes were exaggerated. In his opinion he was not suffering from Bright's disease. He had examined the urine, specific gravity 1010. It contained albumen. He considered all his symptoms were due to spinal injury. The defence was that the plaintiff, if he did meet with an accident on that date, it was of a very trivial nature; that he did not call in his lodge doctor, who lived 100 yards from him; that he went to work three or four days after the accident and worked on for five months until he met with an accident in an explosion of an acetylene gas lamp (caused by his own negligence), burning him severely on the hands and face; that he went to work until he was laid up with acute bronchitis. Dr. Allester, the mine doctor, stated that the plaintiff's wife called on him and asked him for something to rub her husband's back. He was not called to treat him for the accident. He consulted him in January of this year. He examined his urine; it was of low specific gravity and contained albumen. In his opinion plaintiff was suffering from Bright's disease, and his symptoms were due to that disease and not to the accident. Dr. George Cuscaden stated that in company with Dr. C. Ryan he examined plaintiff in the presence of Drs. O'Hara and Honnman. He was undressed. Dr. Ryan examined the spine. Plaintiff said he had a pain in the back at a particular spot. He was asked to locate it, and did so, and the spot was marked with blue pencil. When asked again to point out the painful spot he located it about 2½ in. from previous spot. On pressing firmly on spot marked with blue pencil and being asked if it caused pain, he said "No." The movements of spine were perfect; no tremor was visible until his attention was called to it. His face was pale and puffy under the eyes. From the history from Dr. Allester and present symptoms he would say his present condition was due to Bright's disease of the kidneys and not to the cage accident. Dr. Charles Ryan gave evidence similar to Dr. Cuscaden In his opinion the plaintiff did not suffer from any injury to his back, and that his symptoms were due to Bright's disease. His case lasted six days. The verdict was given for plaintiff, with £600 damages and costs.

Death under an Anæsthetic at the Adelaide Hospital.—The City Coroner conducted an inquest at the Adelaide Hospital, on August 3rd, on the body of a woman who died at that institution while under an anæsthetic. Dr. W. A. Giles, hon. surgeon at the Adelaide Hospital, said he performed an operation for

Digitized by Google

the cure of an umbilical hernia on July 29th. Everything went right, but she continued to vomit. On August 1st alarming symptoms developed, and when he visited her next day she was in a most critical condition. He decided that it was necessary to examine the wound and see if he could do anything to relieve her, as that was her only chance of recovery. He operated in the theatre, and Dr. Caw gave the anæsthetic. Professor Watson and Dr. Mayo and Dr. Bickle were also present. Witness opened up the wound, and quite suddenly, without any warning, the patient gave a few gasps and expired. He had made an examination of the body, and found that the cause of death was peritonitis and cardiac failure. The peritonitis was limited in extent, and it was not intense. He did not ascribe the death to the action of the anæsthetic. He directed that chloroform should be given first, followed by ether. The coroner, in summing up, made some serious charges against what he called the lax administration of the hospital rules, and the jury found that death was due to heart failure, and added this rider: "We are sorry to see the want of knowledge displayed by the medical staff and the apparent careless way in which the rules, that they know, are carried out." The chairman of the Hospital Board (Hon. G. Brookman) has made the following statement:—"In the case under review the consent of the patient and her friends was obtained when Dr. Giles sent the case to the hospital for operation. Unfavourable symptoms having set in on Sunday morning, Dr. Giles considered the only hope lay in immediate operation. There were present at the operation, besides Dr. Giles, Professor Watson, Drs. Helen Mayo, Caw and Bickle. The attendant immediately communicated with the address given by the friends of the deceased, the Thebarton Post Office, but failing to reach them through this channel, requested the Thebarton police to carry the message. In the circumstances nothing further could be done. In this case regulation 12 was complied with, as the consent of the patient was given. In all operations, except in cases requiring immediate attention, notices are sent to the surgeons, and are also posted in the lobby of the hospital. Every case is the subject of consultation between the senior surgeon, his assistant, and very often the medical superintendent. Many of the patients are under observation for weeks before being operated upon. Informal consultations on serious cases are held by senior members of the surgical staff. Dr. Ramsay Smith says that surgeons may operate when, where, and how they please. Operations are conducted at such times as are likely to be most beneficial to the patient, even though not in accordance with the rules as to set operation days. As to the rules, they were framed four years ago to meet certain special conditions, which do not now obtain, and only recently I brought the matter before the board. The rules are out of date and need revision, and this has been under consideration for some time. We are trying to manage the hospital on humanitarian lines; the patients are well cared for in every respect, and haphazard, careless operations do not take place."

A German scientist, Herr Lunden, has made a series of experiments which demonstrate the marvellous qualities of the metal radium. Rats, mice and other animals placed within a short distance of a piece of radium weighing three-tenths of a grain died within three days from no other cause than the proximity to radium. Brought near the human body radium causes wounds resembling burns, though cold, not heat, was felt by the person affected. Its qualities are not solely destructive, but are also beneficial. Herr Lunden cites the cases of two Russian boys, who, though totally blind, regained their sight through treatment by radium rays.

PUBLIC HEALTH.

New South Wales.

Health of the Metropolis.—Report of the Medical Officer of Health for the month of July, 1903.—The number of deaths, after distributing hospital deaths to their proper districts, was 495, equal to a death rate of 11·66 per 1000 living. The number of deaths is 22 greater than the monthly average number for the portion of the year which has expired. The increase for the month is accounted for under the headings of cancer, which caused 35 deaths, against a monthly average of 29; prematurity, 25 deaths, against a monthly average of 15; and Bright's disease, 36 deaths, against a monthly average of 25. Other causes of death showed little or no deviation from their monthly average. One death was registered from epidemic cerebro-spinal fever. Deaths from the notifiable infectious diseases numbered 16, of which four were due to scarlet fever, six to diphtheria, and six to typhoid fever. There has been a considerable decline in the number of attacks notified from all these diseases during July. Especially is this the case with scarlet fever, the notified number of attacks from which fell from 355 in June to 241 in July, a decrease which warrants the hope that the height of the epidemic of this disorder, which has been prevalent in Sydney for the last 12 months, has now passed. Typhoid fever, with 53 notified attacks, has been more prevalent than is usual during July, the average number of attacks from typhoid fever during the corresponding month in the previous five years having been 34. Infantile deaths in July numbered 97, which is well below the monthly average.

The Plague.—Plague-infected rats have been found on board the German barque "Alsterschwan." It is the opinion of the officers of the Board of Health that the rats do not belong to this port, because a daily examination of the rodents caught on Darling Island has failed to disclose that they were infected. It is believed that the rats have been brought by the barque from Rosario, Argentine Republic. At a special meeting of the Board of Health the whole of the circumstances in connection with the barque were carefully considered. It was decided that, as the vessel has 2000 tons of maize to discharge, she must be hauled out into the stream and twice fumigated before the cargo was unloaded into lighters.

Preservatives in Milk.—The report of the Health Committee of the Sydney Municipal Council stated that it had authorised the Bacchus Marsh Concentrated Milk Company being informed that the Council cannot accede to their request by refraining from enforcing the law in regard to taking action under the regulations of the Board of Health prohibiting the use of boracic acid in concentrated milk and table cream. The Lord Mayor explained that the Board could not extend its consent to suspend the law for one firm and not for another. The preservation of milk in a concentrated form necessitated the use of a large quantity of boracic acid, or whatever was used for that purpose, and it was for the authorities to inquire if the preservatives used were deleterious to health. The report was agreed to.

Victoria.

Infectious Diseases in Melbourne.—Scarlet fever has been prevalent in Melbourne. The fortnightly return submitted at the meeting of the Board of Health showed that for the fortnight ended July 18th 88 cases

Digitized by Google

were reported throughout the State, of which 60 occurred in the metropolis. During the corresponding fortnight last year there were only 48 cases in Victoria. Diphtheria cases showed a slight decrease as compared with the same fortnight of 1902, the figures being—1902, 70 cases and 3 deaths; 1903, 67 cases and 5 deaths. The number of cases reported in the metropolitan area during the past fortnight was 34. There were 24 cases of typhoid fever during the fortnight under review, of which four proved fatal.

Treatment of Consumptives.—At a meeting of the Kilmore Hospital committee a letter was read from the Public Health Department stating that if the committee could make accommodation at the hospital for additional consumptive patients it would be recouped for any expense incurred from a fund to be raised in Melbourne for the purpose of assisting the treatment of the disease; also that revenue would be received in the shape of an increased Government grant on account of an increase of the daily average of patients. Only early stage patients would be sent. It was decided to find accommodation for ten patients, at a charge of 15s each per week, the number to be kept up.

South Australia.

Central Board of Health.—At a meeting of the Central Board of Health, held on July 15th, the board approved the appointment of Dr. W. H. Harbison as officer of health for Wallaroo, in place of Dr. D. T. Harbison, resigned. The health officer reported:—"During the fortnight ended July 25 there were notified one case of typhoid fever, six of diphtheria, five of scarlet fever, and six of pulmonary tuberculosis. Of the five cases of diphtheria four were imported from the suburbs for hospital treatment. The remaining case was removed to hospital for isolation and treatment. Of the five cases of scarlet fever one was removed to hospital for isolation and treatment, and four are isolated at home. The epidemic continues to abate. Of the six cases of pulmonary tuberculosis three were removed to hospital for isolation and treatment, while three are under the trained nurse's supervision in their own homes. The city trained nurse has made 128 visits to 66 cases during the fortnight, and finally disinfected 25 houses. Of the 66 cases under her care two were suffering from typhoid fever, one from diphtheria, 31 from scarlet fever, two from erysipelas, and 30 from pulmonary tuberculosis.

UNIVERSITY INTELLIGENCE.

Adelaide.—At a recent meeting of the Senate of the University of Adelaide the Chancellor announced that he had received a letter from the Hon. J. J. Duncan, M.L.C., and Mr. W. H. Duncan, M.P., nephews of the late Sir Walter Watson Hughes, who gave the first donation of £20,000 to the University, stating that they had resolved to commemorate his munificent enterprise by erecting a monument to his memory in the form of a statue similar to that of the late Sir Thomas Elder. This statue will be placed within the University grounds.

Melbourne.—At a meeting of the University Council held on July 20th, the Vice-Chancellor (Sir Henry Wrixon) in the chair, the special committee selected to consider the appointment of a successor to Professor C. J. Martin in the chair of physiology recommended, *inter alia*, that the offer of Professor Halford to resign the chair of physiology and histology, provided that the Council pays him £500 per annum, be accepted, and this recommendation was approved.

HOSPITAL INTELLIGENCE.

Melbourne Hospital. — The 56th annual meeting of the Melbourne Hospital Governors was held on July 22nd. The chairman regretted that the exigencies of the times had produced a debit balance o £4073 2s 5d. The committee had intended meeting the deficit either by closing some of the wards or by handing the institution over to the Government. The overdraft had been produced by the economy of the Government in cutting down the grant by £2000 in 1893-94, and since had further reduced the grant by £2160. The committee felt that the closing of the wards would be a calamity, and had determined to go on with the work and not do so. The pressure on the hospital had been intensified by the delay in opening the Infectious Diseases Hospital. The committee of the Melbourne Hospital had resolved to remove the fever tents. It was suggested that a charity tax should be imposed; one of 2d per head would bring in an income of £150,000 per annum. Also, a tax on sports. The racing clubs did not contribute to the hospitals, though accidents happening at such meetings were treated at the institutions. The maintenance of the hospital was shown to cost £7147 19s 2½d, which was less by £171 than last year, the surgery and dispensing £269, the salaries and wages £146 less than last year. The total ordinary expenditure of the year amounted to £26,194 12s 1d, a saving of £1101 on the figures for the preceding 12 months. The ordinary income of £21,570 13s 4d had gone back slightly. A resolution was carried to the effect that the committee should approach the Government and ask it to bring in legislation imposing a tax on municipalities and another on pleasures, for the purpose of assisting the charities of Victoria.

Hillston Hospital, N.S.W.—At a special meeting of the hospital committee, owing to exhaustion of funds and the impoverished condition of the district, it was decided to reduce the staff by half. It is further contemplated to close the institution at an early date.

Alfred Hospital, Melbourne.—The thirty-third annual meeting of the contributors of the Alfred Hospital, Melbourne, was held at the Town Hall on July 30th. The report showed that of the number of patients treated during the year ended June 30th, 1903, 2010 were in-patients, 4265 out-patients and 2380 casualties. On June 30th, 1902, there were 152 in-patients remaining in the hospital; 1858 were subsequently admitted, and of the total (2010) 1588 were discharged as cured or relieved, 68 as incurable or unrelieved, and 187 died, those remaining in the hospital on June 30th last numbering 167. Of the out-patients remaining on the register at the end of the last year (620) and those since entered (3645), 3675 were discharged as cured or relieved, whilst 590 remained on the register. Notwithstanding the congested state of the wards during last year, the death rate (9·3) was the lowest recorded since 1880. The financial and general statement showed that the average cost per occupied bed disclosed a marked reduction on the previous year, the figures being £61 10s for 1901-2, and £58 19s for 1902-3. The revenue for the past year was very satisfactory. The aggregate receipts from hospital patients during the year were £2313, the highest sum yet recorded. The further reduction of the Government grant by £720 was regarded as the main cause of the hospital failing to meet expenditure.

Austin Hospital for Incurables, Melbourne.—The 21st annual meeting of the Austin Hospital for Incurables was held at the Town Hall, Melbourne, on July 30th. The report stated that, apart from financial

Digitized by Google

considerations, the institution stood in a better position than it ever had done. There had been a very large decrease in the death rate—nearly 35 per cent.; and a great increase in the popularity of the hospital. In dealing with the consumptive wing of the institution, the report stated that the success attending the work carried out in the Austin Hospital demonstrated that consumption was more or less amenable to treatment. Several patients had been so greatly relieved as to no longer require hospital treatment, and there had been a large decline in the death rate. The cancer accommodation (22) beds had frequently fallen far short of requirements. The result was that many applicants died before provision could be made for their admission. The most marked improvement in revenue was "private contributions," which showed an increase of £560 on the previous year. The expenditure on maintenance and administration for the year was at the average rate of £46 17s 1d per occupied bed, as compared with £50 1s 3d for the previous 12 months. The expenditure exceeded the income by over £500.

Williamstown Hospital, Victoria.—At the annual meeting of the Williamstown Hospital the annual report showed that 82 patients had been admitted for the year, 505 treated as out-patients, and the total attendances numbered 2125. The cash receipts for the year amounted to £606 5s 7d, and the balance brought forward £343 12s 11d, the total being £949 18s 6d. The expenditure on maintenance had amounted to £740 0s 8d, £150 had been transferred to the building account towards providing a new waiting room, and £50 17s 10d had been brought forward. Dr. James having left the district, Dr. Webb, of Footscray, had been elected by the committee in his place, and his re-election was opposed by Dr. Bryant, of Williamstown. After discussion it was decided to add both candidates to the medical staff, and also to re-elect Dr. J. Box, whose term had expired. Dr. Maclean, one of the honorary surgeons, tendered his resignation at the close of the meeting.

Queen Victoria Homes for Consumptives.—At the meeting of the committee of the Queen Victoria Homes for Consumptives Fund held last month, the hon. treasurer reported the receipt of a cheque for £160, being share of the home in the distribution of the Hospital Saturday Fund. The hon. secretary announced that plans and specifications had been prepared by the hon. architect (Mr J. Sydney Jones) for laundry buildings in connection with the home. The committee adopted the recommendation of the architect and accepted the tender of J. Knight for the erection of the buildings at £385. It was resolved to obtain an estimate of cost for erecting a building to provide accommodation for an additional 20 patients, on similar plans to those at present in existence at Wentworth Falls, N.S.W. It was decided that Dr. P. Sydney Jones and Mr. H. S. Levy wait upon the Minister for Works and request that an officer of the department might be sent to Wentworth Falls to report upon a suitable site for the conservation and supply of water for the home, as it was feared that during the summer months the water stored in the tanks would prove inadequate for the wants of the home. The report of the medical superintendent at the Wentworth Falls Sanatorium showed that during the past month three patients had been discharged with the disease completely arrested and able to return to work, and that all other cases were making satisfactory progress. The matron's report (Thirlmere) showed that there were 40 patients in the home. During the month nine had been admitted, 10 had been discharged, while one patient had died.

Gundagai Hospital, New South Wales.—At a public meeting held last month to protest against the decision of the hospital committee to proceed with the erection of the new hospital at Glebelands the following resolutions were carried unanimously:—"That this meeting protests against the action of the committee of management of the Gundagai District Hospital in deciding to erect a new hospital on the site known as the Glebeland, as we consider the placing of the building on the site mentioned would be prejudicial to the future welfare and utility of the institution. We respectfully demand that the new hospital be built only on the site known as Ryan's block and pound reserve. That the resolution, with a copy of the petition of July 13th, and subsequent names added thereto, be forwarded to the Premier and Colonial Secretary." "That this meeting dissents from and disapproves of Dr. Millard's report."

Ravenswood Hospital, Queensland. — The annual report of the Ravenswood Hospital for the year ended 30th June, 1903, states that the credit balance is £147 1s 9d, as compared with £44 2s 6d, that for last year. The committee calculate that by the help of the Government subsidy, due to 30th June, £311 17s 7d, and donations, to have approximately a total of £500 to enable the new committee to carry on its work. There were remaining in the hospital on July 1st, 1902, 15 patients; admitted during the year, 179. There are remaining 11 patients; 169 persons were treated in the out-patient department. There were 18 deaths during the year. The principal diseases treated were—Diseases of the lungs and pleura, 17; stomach and intestines, 12; typhoid fever, 10: general debility, 20; fractures, etc., 17; abscess, boils, burns, etc., 18.

Auckland Hospital, N.Z.—The report of the Commission to enquire into the management of the Auckland Hospital was published on the 2nd ult. The committee recommend various changes with regard to out-patients, admission to hospital, charges, etc.; acknowledge that the hospital "is lacking in efficiency on account of its need for up-to-date appliances and accommodation for surgical operations," but make no recommendation, and finally suggest that the secretary should be the executive officer guiding the business of the board. The total cost of maintenance of hospital had increased from £12,086 in 1902 to £15,661 in 1903, the average daily number of patients having increased by 23.

The Coast Hospital, Sydney.—For the seven months ending July 31st, 2013 patients were admitted to the hospital, being an increase of 574 on the corresponding period for 1902. During the month of July 271 patients were admitted, of whom 185 were general cases, and 82 were suffering from infectious diseases. The number discharged was 261. Of these 216 were cured and 45 relieved, while nine patients died during the month. There remained in the hospital at the end of July 299 patients, and of these 195 were general and 104 infectious cases, including scarlet fever 76, erysipelas 12, enteric fever 7, diphtheria 6, measles 1, and plague 2. The average daily number resident for the month was 304·09.

Adelaide Hospital.—The report of the Board of Management of the Adelaide Hospital for the year ended December 31st, 1902, states that the number of cases admitted was 3193; deaths of in-patients, 264; average daily number of patients in hospital, 248; annual cost of each in-patient, *i.e.*, per bed occupied, £73 5s 6d; number of attendances of out-patients treated, 20,233; total annual expenditure, £19,065; annual contributions received, including 10 per cent. of all life contributions, £1127; fees received for maintenance of patients, £602 19s. The expenditure for the year 1901 was £20,103. The annual contributions amounted to

Digitized by Google

£783 12s. The statistics for the year, as compared with those of 1900, show the following decreases, viz.:—178 in the number of patients admitted, 18 in the number of deaths of in-patients, 2 in the average daily number of patients in hospital, £1038 11s in the total annual expenditure, and increase of £280 5s 1d in the amount of fees received for the maintenance of patients. Three hundred and five patients were sent to the Convalescent Hospital, Semaphore, at a cost to the Adelaide Hospital of £258 19s 8d.

Hospital for Sick Children, Sydney.—At the last meeting of the Board of Management of the Sydney Hospital for Sick Children, in the house committee's report attention was drawn to the fact that the death-rate in the diphtheria cottage for the tracheotomy cases had recently been exceptionally high, viz., 13 deaths in the last 14 cases. In the discussion that followed it was pointed out that the report on this matter, which had been obtained from the medical officer in charge of the diphtheria cottage, attributed the high death-rate to the fact that all these children had been ill three days and over before admission. The remedy he suggested was that medical men should endeavour to educate the public to appreciate the seriousness of croup in a child, and impress upon them the importance of seeking advice at the earliest possible moment.

MILITARY INTELLIGENCE.

Army Medical Corps.—Stoker, Captain Henry, reserve of officers, Medical Staff, Victorian Rangers, to be Captain; Crouch, Brevet Lieutenant-Colonel Ernest John, V.D., Principal Medical Officer, to the retired list, Tas., with honorary rank of Colonel; Giblin, Captain Wilfred Wanostrecht, to be Major, and Principal Medical Officer, Commonwealth Military Forces of Tasmania, *vice* Lieutenant-Colonel E. J. Crouch, V.D., retired.

NEW ZEALAND.

Collins, Surgeon-Major William Edward, to be Brigade Surgeon Lieutenant-Colonel, New Zealand Volunteer Medical Staff.

Webster, Charles Franklin Garcia, to be Surgeon-Captain, New Zealand Volunteer Medical Staff.

N.S.W. Lodge Practitioners' Defence Fund.—The hon. treasurer (Dr. Crago) acknowledges with thanks the receipt of subscriptions of 21s each from Drs. Gledden and Langton. Total to date, £119 0s 6d. Members who have promised subscriptions or donations are respectfully requested to forward them at once.

PRACTICES FOR SALE, Etc.

N.S.W.—Required immediately, Doctor (R.C.) to take over a Death Vacancy upon very favourable terms of purchase. Returns £800.

N.S.W.—A chance occurs of Renting for 6 months the Furnished Rooms of a leading city doctor. This would be a good chance of starting city practice.

N.S.W.—Practice in a good district; good climate. Though only established two years, has returned nearly £1000 for the two years, and each year will see an increase. Price, £150.

N.Z.—For immediate transfer, through ill health of owner, Practice now returning £500 cash, formerly £1000, and can be raised again by energetic man. Price, £50.

Mr. F. W. LOXTON,
Tel. 3573. 16 O'Connell-street, Sydney.

MEDICAL NOTES.

Home for Destitute Invalids, Sydney.—At the second annual meeting of the Commonwealth Home for Destitute Invalids, situated at Redfern, the annual report stated that the home provided for 14 inmates, but the extension of the work was hampered by want of funds. Mr. H. A. Pyke, one of the founders of the home, had been made a life member of the committee in recognition of his great work at the outdoor meetings. The collections at these night meetings for 18 months totalled £653 5s 10d. The financial statement disclosed a credit balance of £102 10s. In supporting a vote of thanks to the subscribers, the State Treasurer said that he could scarcely imagine any nobler institution in the city than the Home for Destitute Invalids. He was pleased at the silent and unostentatious manner in which the work was carried on, and in future he would be a subscriber.

Old Age Pensions.—When the old age pensions were granted, a number of old men left the various asylums in Parramatta, N.S.W., and housed together in rickety tenements, where there was but little comfort to be had. The lack of comfort, however, seemed to have been compensated for by the fact that the old men were free to come and go when they liked. Of late a number of these tenements have been condemned, but still the matter is not looked upon as satisfactory. At the last meeting of the council the Mayor stated that he had received a report from the local health officer, suggesting that the by-law with regard to common lodging-houses should be put into force, so that the evils now threatening in connection with the "farming" of old age pensioners locally might be coped with. The feeling of the council seemed to be that the by-law giving power to the council to deal with matters of the kind should be put in force. One alderman stated that not far from where he lived a small house had been rented, and he understood that it was proposed to take in 23 persons, including 19 old age pensioners, two women, and a girl 12 years of age.

Charitable Donations and Bequests.—The late Hon. J. T. Toohey, M.L.C., of Sydney has bequeathed £100 to each of the following institutions:—Hospital Holy Child, Lewisham; St. Vincent's Hospital; Infants' Home, Ashfield; St. Margaret's Maternity Home; Waitara Foundling Hospital. The hon. secretary for the Sydney stud sheep salesmen (Messrs. Goldsbrough, Mort & Co., Ltd., Hill, Clark & Co., Ltd., and Weaver and Perry) decided to donate proceeds in connection with the late sales in the following manner:—Queen Victoria Home for Consumptives, £10 14s 6d; Benevolent Asylum, £10; North Shore Hospital, £10; Hospital for Sick Children, Glebe, £6 6s; Infants' Home, Ashfield, £6 6s; Boys' Brigade, £6 6s; Sydney Hospital, £6; Prince Alfred Hospital, £6; St. Vincent's Hospital, £6; Marrickville Cottage Hospital, £5; Auburn Cottage Hospital, £5; Parramatta Hospital, £5; Manly Cottage Hospital, £5; Western Suburbs Cottage Hospital, £4; Lewisham Cottage Hospital, £4; Blind Institution, Boomerang-street, £5; Civil Ambulance and Transport Brigade, £5; St. John Ambulance, £5; Randwick Asylum, £5; Fresh Air League, £3. Total, £118 12s 6d.

Government Asylums, N.S.W.—Nurses at Liverpool, George-street, Macquarie-street, Newington and Rookwood Asylums work on an average eight hours a day, and receive salaries varying from £90 to £97 a year. Attendants average ten hours a day, and are paid at the rate of £90 to £135 a year. The number of hospital patients in the asylums under the care of the director of institutions for the infirm and destitute is 1476, the

Digitized by Google

respective numbers being: Rookwood Asylum, 463; Liverpool, 403; Macquarie-street, 16; George-street, 311; and Newington, 283.

The Melbourne Hospital committee decided on July 14th to send a letter of credit for £500 towards purchasing its drugs in London. The cost of drugs for three years was quoted to show the benefit gained by the hospital by buying direct. In 1901 the drug bill was £4463, in 1902 £4176. In those years the supplies of drugs were contracted for locally. The present year, closing on 30th ult., was the first in which the hospital had imported its own supplies, and the cost was lowered to £3051.

Sixty pounds has been subscribed to purchase an X-ray apparatus for the Horsham District Hospital, South Australia.

Fish Sausage.—We have received from the New South Wales Fresh Food and Ice Co. a sample of one of their latest productions in the shape of fish sausage. Like all the other productions of this company it is to be highly recommended. It is delicate in flavour, and should prove a valuable addition to the dietary scale of patients who are unable to take ordinary meats.

District Nursing Association.—By the kindness of the N.S.W. State Governor and Lady Rawson the grounds of "Cranbrook" have been lent for a fête in aid of the District Nursing Association on the afternoons of Friday and Saturday, September 4th and 5th. This association will shortly be the only society in Sydney that sends nurses to the poor and needy, and it is hoped that this fête will enable them to establish a home and better supply the demand for nurses. Besides stalls, side shows, refreshments and concert, there will be a dramatic representation of scenes from "Alice in Wonderland."

The Women's Branch of the A.N.A. has been declared by the Council of the N.S.W. Branch of the British Medical Association a society prejudicial to the interests of the profession in terms of the Articles of Association.

PERSONAL ITEMS.

Dr. and Mrs. Lockhart Gibson have returned to Brisbane from a trip to Canada.

Dr. Hare, Inspector of Charitable Institutions, has returned to Brisbane from a visit to the north. During his absence his duties were carried on by Dr. A. J. Turner.

Dr. Orton, who has been in England for six months, is expected to be in Stanthorpe, Q., about the end of August.

H.R.H. the Prince of Wales, Grand Prior, and the Chapter of the Order of St. John of Jerusalem in England, have, with the sanction and approval of his Majesty the King, conferred the honour of Serving Brethren in the above Order upon Dr. G. Lane Mullins, Dr. T. Storie Dixson, and Dr. A. E. Perkins, D.S.O., commissioner, deputy commissioner, and medical officer-in-chief respectively of the St. John Ambulance Brigade in Sydney.

A thoroughly representative meeting, convened by the Mayor of Clare, S.A., was held lately to consider what steps might be taken to perpetuate the memory of the late Dr. Bain. It was unanimously resolved that a rotunda, to be called the "Bain Rotunda," be erected on the Clare recreation grounds. A subscription list was opened, and a substantial sum was subscribed by those present.

Dr. H. B. Cuppy, a well-known figure in scientific circles, by reason of his numerous expeditions conducted in the Indian and Pacific Oceans, has just finished his examination of the material collected during two years of exploration in Fiji.

Dr. F. S. Stuckey has returned to New South Wales after a 12 months' trip to England.

Dr. Tomlins has removed from Ballina to Kempsey, Macleay River, N.S.W. On leaving the district, Dr. and Mrs. Tomlins were entertained at a conversazione and presented with a purse of sovereigns and addresses from the local Oddfellows, School of Arts and Church of England.

Dr. W. J. Stewart McKay has removed from Stanmore to Darlinghurst-road, Sydney.

Mr. J. Ker Lindsay, late representative of Mr. G. Arnold, of Sydney, has left for Edinburgh to continue his medical studies.

Dr. Gregory Sprott, Health Officer to the city of Hobart, has resigned. Dr. E. J. Crouch has also resigned his appointment as Government Medical Officer to the institutions, and has been succeeded by Dr. A. H. Clarke.

Dr. Shanahan, of Arltunga, S.A., has been appointed an officer of health under the Health Act.

Dr. Dunkley, on retiring from the Board of Public Health to practise his profession at Oakleigh, Victoria, was on the 31st ult. presented by members of the staff with a visiting bag fitted with surgical instruments.

Dr. Elkington, formerly of the Victorian Health Department, is visiting Tasmania to advise the local authorities as to the best means of coping with the smallpox outbreak.

Dr. Wilson, who for some time past was lying in a critical condition at Yarra homestead with a complication of complaints, also with two broken ribs, was taken to Germanton, N.S.W., in a buggy which was transformed into an invalid's bed. Dr. Wilson is now out of danger, but will be an invalid for some time.

Sir Normand MacLaurin and Dr. J. Foreman returned to Sydney on August 5th by the Japanese steamer "Yawata Maru" after a holiday trip as far as Cairns, Queensland. They were absent about a month. The opinion of both gentlemen is that the sugar industry cannot be carried on there without the assistance of black labour.

Dr. Belgrave has resigned as Medical Officer of Health at Nannine, W.A.

Dr. S. R. Smythe has resigned as Medical Officer of Health at Wiluna, W.A.

Dr. J. Somerville, who has been away from Auckland on a lengthy visit to Europe, is expected back there very shortly.

Dr. Lyon has come out to New Zealand for a few months' change. Dr. Lyon intends returning to his home in Hammersmith West in October next.

Mr. H. S. Brothwood has taken over the chemist's business at 82 King-street, Sydney.

Digitized by Google

Dr. Douglas, of Queenstown, N.Z., has left on a two months' holiday. Dr. Brown, of Dunedin, is looking after his practice meantime.

Dr. Robert Fulton, of Dunedin, has been elected a member of the Society of Arts, London, in recognition of his paper on fire-walking as practised by the Fijians.

Dr. Perkins, of Wellington, N.Z., has left for England on a trip.

Dr. Arthur de Renzi, brother of Dr. de Renzi, of Wellington, has arrived in Wellington, N.Z., from an extended visit to England and Europe.

Dr. Marsack, of Wellington, N.Z., who has been ill for several months past, left with Mrs. Marsack on a trip to Australia in the middle of June. In the meantime his practice is being looked after by several of the city practitioners.

Dr. R. T. Paton, Government medical officer, returned to Sydney by the R.M.S. "China" after spending a six months' holiday abroad. He visited his native town, Edinburgh, and also spent some little time at Oxford.

Dr. W. Atterbury, late of Catherine Hill Bay, N.S.W., has commenced practice in Wood Green, London, N.

At a special congregation of the Adelaide University, presided over by the Chancellor (Sir Samuel Way, Bart.), Miss Ethel Mary Murray Ambrose was presented by Dr. Giles, Dean of the Faculty of Medicine, as a candidate for the degrees of Bachelor of Medicine and Bachelor of Surgery, she having completed her course in March of this year. His Honor said he gathered that the ladies and gentlemen in the University congratulated the recipient as cordially as he did on her success in obtaining the degree, and all sincerely wished Miss Ambrose every success. The new graduate was greeted with a hearty round of applause from her fellow-students. Dr. Ambrose has been appointed a resident medical officer of the Perth Hospital, W.A.

Dr. H. Higham Wigg has commenced practice at North-terrace, Adelaide.

Dr. Lorier has discontinued practice at North-terrace, Adelaide.

Dr. D. Kerr, who has lately been practising at Forbes, N.S.W., has taken the practice of Dr. Purves at Angaston, S.A.

At the last quarterly meeting of the Ballarat District Branch of the B.M.A., the President (Dr. Usher), in a very happy speech, presented Dr. J. T. Mitchell with a gold sovereign purse, suitably inscribed, on behalf of the members, as a slight recognition of his untiring and valuable services to the Society as secretary for the past six years. Dr. Mitchell returned thanks in appropriate terms.

Burglars recently entered Dr. Jay's consulting room at his residence, Brougham Place, North Adelaide, and stole between 20 and 30 sovereigns. The drawer from which the haul was made was lying open, but a number of notes and cheques had been left untouched.

Professor C. J. Martin, F.R.S., Professor of Physiology in the University of Melbourne, who has been appointed Director of the British Institute of Preventive Medicine, leaves Melbourne for London by the M.M.S. "Dumbea" on September 17th.

A little child, three years old, was, on August 11th, playing round a dam just outside Camden, N.S.W., and fell in. Dr. West, who happened to be riding past at the time, jumped in and brought the child up from the bottom of the dam, and, after a short time, revived it.

Dr. A. A. Palmer, of Elizabeth-street, Sydney, has been appointed local Secretary for New South Wales to the Australasian Medical Congress.

Dr. Comyn has returned from his visit to the Old Country and resumed practice in Brisbane.

Dr. Garde, M.L.A., has commenced practice in Brisbane.

Dr. Samuel T. Knaggs, who for many years practised his profession in Sydney, New South Wales, lately removed to Kobé, Japan, for the benefit of his health. Dr. Knaggs appears to have some cause of complaint respecting the delay that has occurred in recognising his right to practice in Japan. Judging from the correspondence published in the *Kobé Chronicle* in June last, it seems the local authorities failed to recognise the title, K.Q.C.P.I., the name of which college has been recently altered to R.C.P.I. This misconception must have caused Dr. Knaggs inconvenience and some annoyance, inasmuch as a German medical man was able to obtain his credentials to practice in Japan with as little delay as ten days, while Dr. Knaggs' case extended over several months, and occasioned the raising of a question on the point in the British House of Commons. Dr. Knaggs' qualifications are so undeniable that their tardy recognition is the more regrettable.

MEDICAL APPOINTMENTS.

NEW SOUTH WALES.

Costelloe, John, M.B., B.S., to be Medical Officer to the Balranald Hospital.

Harris, John, M.D. (Aberd.), J.P., to be a member of the Licensing Court for the District of Newcastle, N.S.W.

Lane, Dr. Roland M., of Footscray, Victoria, to be Resident Surgeon of St. Vincent's Hospital, Sydney.

Llewellyn, Rees Frank, M.B., M.Ch. (Syd.), to be Government Medical Officer and Vaccinator at Braidwood, N.S.W., *vice* Dr. H. L. Cummings, resigned.

Nash, Hon. J. B., M.D., M.L.C., to be a Director of the Sydney Hospital, *vice* the Hon. Sir John See, K.C.M.G., M.P., resigned.

Rees, Walter Llewellyn, M.B., to be Junior Medical Officer in the Lunacy Department on probation for 12 months.

Reid, Charles William, M.B., B.Ch., Senior Medical Officer, Department of Lunacy, to be Acting Port Health Officer, Sydney, and Acting Visiting Medical Officer, Shaftesbury Reformatory, during the absence of Dr. William Peirce on leave.

Rennie, G. E., M.D., to be Director of the Carrington Hospital, Camden, N.S.W., *vice* Dr. F. Norton Manning, deceased.

Stillwell, Dr. Effie, recently at the Lady Bowen Hospital, Brisbane, to be Medical Superintendent to the Medical Mission, Sydney.

VICTORIA.

Brown, Dr. R. C., to be Honorary Anæsthetist to the Alfred Hospital, Melbourne.

Hearn, Dr., to be Honorary Anæsthetist to the Alfred Hospital, Melbourne.

Mullen, Dr. W. L., to be Deputy Medical Superintendent of the Kew Lunatic Asylum.

QUEENSLAND.

Bourke, James Joseph Fitzgerald, L.R.C.P. & S. (Irel.), to be Medical Officer at Hughenden, Q., *vice* Richard Henry Symes, L.R.C.S. (Irel.), deceased.

Hope, Edward Culbertson, M.R.C.S. (Eng.), to be Medical Officer at Winton, *vice* William David Bowkett, deceased.

Digitized by Google

Kane, Robert English, L.R.C.P. & S. (Edin.), to be Medical Officer at Taroom.
O'Brien, Richard Alfred, M.B., B.S. (Melb.), to be Health Officer for the Port of Brisbane, *vice* James Edward Fancourt McDonald, M.B., B.S. (Melb.).

SOUTH AUSTRALIA.

Harbison, Dr. W. H., to be Officer of Health for Wallaroo, *vice* Dr. D. T. Harbison, resigned.
Shanahan, Patrick Francis, M.B., B.S., of Arltunga, S.A., to be an Officer of Health.

WEST AUSTRALIA.

Butler, Dr., to be Medical Officer of Health at Beverley.
Derbyshire, D. H., M.R.C.S., L.R.C.P., to be Officer of Health at Buckland Hill.
Durack, Dr. W. J., to be Officer of Health at Port Hedland.
Ellis, Dr. H. A., to be Officer of Health at Coolgardie.
Evered, Dr. A. Courtney, to be Officer of Health at Albany.
Flynn, Ignatius Joseph, M.D. to be Officer of Health at Bunbury.
Frost, Dr., to be Officer of Health at Day Dawn, *vice* Dr. D. F. Blanchard, resigned.
Harvey, Dr. R. R., to be Medical Officer of Health at Norseman.
Hungerford, Dr. L. M., to be Officer of Health at Busselton.
Roughan, Dr. J. A., to be Officer of Health at Narrogin.
Smyth, Dr. S. R., to be District Medical Officer and Public Vaccinator at Moora.

TASMANIA.

The following to be Public Vaccinators for the districts set opposite their names:—

Crowther, Dr. A. B., Hobart.
Giblin, Dr. W. W., Kingborough, Glenorchy and Brighton.
Stewart, William Robert, M.R.C.S., District of Mersey, Tasmania.
Savage, Dr. V. W., Oaklands.
Simpson, Dr., Wynyard.
Wishaw, Dr. R. R., Hobart.
Wilson, Dr. Tas. G., Launceston.

NEW ZEALAND.

Browne, J. Walter, M.B., B.Ch. (Dubl.), to be a Port Health Officer for the Port of Hokianga, N.Z., *vice* Dr. Wheeler, resigned.
Henry, Claud Dawson, M.B., B.S. (Camb.), to be Police Surgeon at Wellington, N.Z., *vice* Dr. John Teare, resigned.
Moorhouse, Benjamin Michael, M.B., C.M. (Edin.), M.R.C.S. (Lond.), to be a member of the Board of Governors of Canterbury College, N.Z.

To be Public Vaccinators:—

Cheesman, Herbert H., M.R.C.S. (Eng.), for Coromandel.
Douglas, Alexander, M.B., M.S. (Edin.), for Oamaru.
Gardner, Geoffrey Edward, M.R.C.S. (Eng.), for Shannon.
Gordon, Colin Huntly, M.B., B.S. (Univ. N.Z.), 1902 (*vice* Dr. Stephens, resigned), for Riverton.
Halse-Francis, Ferdinand H., L.S.A. (Lond.), for Kaikoura.
Inglis, Herbert McClelland, M.B., M.S. (Edin.), for Cheviot.
Keller, Peter Martin, M.D. (U.S.A.), for Huntly.
Keller, Florence, M.D. (U.S.A.), for Huntly.
Kemp, John Harold, M.B., B.C. (Univ. Camb., Eng.), for Wellington.
Logan, W. A., M.B., Ch.B. (Univ. N.Z.), for Wellington.
Mackay, F. Reid, M.D. (Univ. Edin.), for Dannevirke.
Nicoll, Alexander, M.B., M.D., etc. (*vice* Dr. Perceval, resigned), for Patea.
Pollen, Henry, M.B., etc., for Wellington.
Stockwell, George Thomas, M.R.C.S. (Eng.), for Orepuki.

PROCEEDINGS OF AUSTRALASIAN MEDICAL BOARDS.

NEW SOUTH WALES.

Davidson, Andrew, M.B., M.S. 1892; M.D. (Univ. Aber.), 1899.
Ealer, Alfred William, M.D., M.S., M.A.O., R.U. (Irel.), 1887.
Lane, Roland Mastai, M.B., 1902; B.S. (Melb. Univ.), 1903.
Manly, Richard Augustus Aloysius, M.B., 1899; B.Ch. (Univ. Melb.), 1900.
Moore, William Edward, L., L.M., 1891; R.M.P. (Irel.); L., L.M., 1891; R.C.S. (Irel.).
Smith, William Beattie, L.R.C.P. (Edin.), 1876; L.R.C.S. (Edin.), 1876; F.R.C.S. (Edin.), 1879.
Stillwell, Effie, M.B., B.S. (Univ. Melb.), 1901.

For Additional Registration.

Woolnough, Robert Edmund, M.Ch. (Univ. Syd.).

SOUTH AUSTRALIA.

Bonnin, Francis Josiah, M.B., B.S. (Melb.), 1900; M.D. (Melb.), 1903.

TASMANIA.

Webster, George Alexander, M.R.C.S. (Eng.), 1886; M.B. (Univ. Camb.), 1889.

BIRTHS, MARRIAGES AND DEATH.

BIRTHS.

FRANCIS.—On July 13th, at Bundaberg, Q., the wife of Thos. W. Francis, M.R.C.S. (Eng.), L.R.C.P. (Lond.)—a daughter.
GLYNN.—On July 25th, at Riverton, S.A., the wife of Dr. R. McM. Glynn—a son.
HEGGATON.—On June 22nd, at Murrumburrah, N.S.W., the wife of R. D. Heggaton, M.B.—a son.
MACLEAN.—On July 22nd, the wife of Roland Maclean, M.B., Kaniva, Victoria—a daughter.
O'HARA.—On July 13th, at Mandalay, St. Kilda-road, Melbourne, the wife of Henry M. O'Hara, F.R.C.S.I.—a son.
RANDELL.—On June 10th, 1903, at 296 William-street, Perth, W.A., the wife of Dr. A. E. Randell—a son.
VERCO.—On July 22nd, at Molesworth-street, North Adelaide, the wife of W. A. Verco, M.B. & B.S.—a son.
WEBB.—On July 17th, at Footscray, Victoria, the wife of J. Ramsay Webb, F.R.C.S.—a son.

MARRIAGES.

DEVITT—GRIFFIN.—On July 23nd, at St. Patrick's Church, Ravenswood, Richd. Edmond Devitt, M.B., B.Ch., of Ravenswood, to Gertrude, daughter of John Griffin, J.P., Ravenswood, Queensland.
FAIRFAX—LAMB.—July 21st, at St. Mark's, Darling Point, Edward Wilfred Fairfax, M.B., M.R.C.S., of Sydney, youngest son of Sir James Fairfax, to Mary Marguerite, daughter of the late Alfred Lamb, Esq.
HORTON—BENNETT.—On June 3rd, 1903, at St. Matthias' Church, Paddington, Sydney, William Henry Horton, M.B. (Syd.), to Alice, daughter of Edward Bennett, Woollahra, Sydney.

DEATH.

McAREE.—On July 17th, at his residence, Ralston House, Largs Bay, S.A., Francis McAree, M.R.C.S. (London), and staff surgeon, R.N., in his 82nd year.

BOOKS RECEIVED.

Eye Symptoms as Aids in Diagnosis. By Edward Magennis, M.D., D.P.H. Bristol: John Wright & Co. 1903. Price, 2s net.
Physiology, Part III. Catechism series. Edinburgh: E. and S. Livingstone. Price, 1s net.
Wheeler's Handbook of Medicine and Therapeutics. Second edition. Revised and enlarged by W. R. Jack, B.Sc., M.D., F.F.P.S.G. Edinburgh: E. and S. Livingstone. 1903. Price, 8s net.
Lectures on Massage and Electricity in the Treatment of Disease. By Thos. Stretch Dowse, M.D., F.R.C.P. Fourth edition. Bristol: J. Wright & Co. London: Simpkin, Marshall and Co. 1903. Price, 7s 6d net.

HUDSON'S "EUMENTHOL" JUJUBES (Registered) are a Gum Jujube containing the active constituents of well-known Antiseptics, Eucalyptol, Thymus Vulg., Pinus Sylvestris, Mentha Arv., with Benzo-Borate of Sodium, etc., and exhibit the antiseptic properties in a fragrant and efficient form. Sold by all chemists; tins, 1s 6d. Are Antiseptic, Prophylactic, reduce Sensibility of Mucous Membrane. Mr. W. A. Dixon, F.I.C., F.C.S., Public Analyst of Sydney, after making exhaustive tests, says:—"There is no doubt but that 'Eumenthol' Jujubes have a wonderful effect in the destruction of bacteria and preventing their growth. . . . I have made a comparative test of 'Eumenthol' Essence and Creosote, and find that there is little difference in their bactericidal action."

Digitized by Google

AUSTRALASIAN MEDICAL GAZETTE.

MECHANISM OF THE PAROXYSMAL NEUROSES.

By Francis Hare, M.D., Consulting Physician, Brisbane General Hospital, Inspector of Hospitals, Queensland.

EPILEPSY.

VASO-MOTOR theories of epilepsy were at one time predominant; they are still largely held, though the tendency at present seems to be to relegate the vaso-motor phenomena to a subordinate position. Gowers says[1]:—"The vaso-motor theory of epilepsy is alike unneeded, unproved and inadequate. The phenomena indicate that there is a discharge of grey matter, and there is nothing to warrant us in going beyond the grey matter concerned in our search for the origin of the discharge." Such a conclusion may be all that is warranted from the restricted standpoint of the neurologist; but even so, I cannot help thinking that the assertion of the author quoted is unnecessarily dogmatic, for there is much to be said on the other side. The primary cortical theory is unsupported by any direct evidence; it does not enable us to understand the relationships of epilepsy with other conditions, such as gout and pyrexia; and, most unfortunate of all, it tends to concentrate attention exclusively upon the cerebral cortex and its intimate microscopic structure, and thus to discourage investigation in other directions.

In these papers I am seeking to take a wider view of the paroxysmal neuroses than is at present customary; and we have already seen that the relationships of three members of this group, namely, migraine, asthma and angina, are not restricted to the group, but extend to other disorders such as gout and pyrexia. The same, we shall find, is true of epilepsy, which is known to alternate not only with migraine, asthma, angina and other paroxysmal neuroses, but with gout and pyrexia generally. Hence there is much to encourage us in going behind the grey matter of the cortex, and in searching for a pathological mechanism which will fall into line with that which we have ascribed to the three vaso-motor disorders already considered. Such a theory, we shall find, is easy of construction—indeed it almost exists ready made: it will rest upon a fairly broad foundation of fact; and it will enable us to correlate and explain many of the hitherto disconnected and unexplained observations which have been made concerning epilepsy. It will be convenient to set forth this theory in the first place, and thereafter to collect and arrange the recorded observations upon which it is based, and which it may be taken to explain.

Theory of "idiopathic" epilepsy. — Moxon observed that in some cases of epilepsy the heart stopped beating just antecedent to the onset of convulsions, and this led him to conclude that the unconsciousness and the convulsions were the direct result of the cerebral anæmia so induced. He ascribed the heart stoppage to inhibition by the pneumogastric, but he was careful to state that the "entirely[2] unknown scource of the pneumogastric impulse" stands behind his explanation, "throwing on it the doubt whether the same unknown impulse, which discharges the pneumogastric, may not play among the centres where consciousness is seated, and itself involve a loss of consciousness." The theory I am about to frame will, if accepted, set this doubt at rest, for it will go a step behind the pneumogastric impulse and offer for this a tenable explanation.

I shall assume provisionally that in epilepsy, as in most cases of migraine and asthma, there is initial widespread area of vaso-constriction tending to cause a rise in the general blood pressure; that this vaso-constriction, either because it is sudden or because it is very extensive, leaves no time or room for adequate compensation by an area of vaso-dilation; and that consequently cardiac inhibition through the vagus is demanded to check the continuous rise in the general blood pressure so induced. So is occasioned a grave modification in the heart beat, of the nature of slowing and weakening, amounting perhaps quite often to actual cessation. In this way is produced a more or less sudden fall in the blood pressure and a more or less sudden anæmia of the brain, which is the proximate factor of the unconsciousness and of the convulsions. Synchronous with the initial rise of blood pressure are the various premonitory symptoms or auræ of the fit; synchronous with the sudden fall of blood pressure is the loss of consciousness and the commencement of the tonic muscular spasm; synchronous with the recommencing heart-beats and the progressive recovery of the general blood pressure is the relaxation of the tonic spasm and its substitution by intermittent or clonic convulsions, presenting progressively widening intervals. As the blood pressure continues to rise, the clonic convulsions become less and less frequent and finally cease.

Digitized by Google

If we believe, with Moxon,[3] that the muscular convulsions are adapted to complete the venous circulation to the right auricle, and so assist in building up once more the blood pressure, which the inhibition of the heart had allowed to fall, then each individual step in the complex process becomes conservative as regards its immediately antecedent step: the very convulsions stand between the patient and sudden death.*

We may epitomise the steps in such an epileptic fit as follows:—

1. Vaso-constriction, causing rapid rise in general blood pressure.
2. Cardiac inhibition, causing sudden fall in general blood pressure.
3. Sudden cerebral anæmia, causing unconsciousness and tonic spasm.
4. Recommencement of the heartbeat, causing rise in general blood pressure, and returning cerebral circulation.
5. Relaxation of tonic spasm; clonic convulsion.
6. Re-establishment of blood pressure and cerebral circulation; cessation of all convulsion.
7. Sleep recuperative of exhaustion and damage.

Most of the clinical descriptions of major epilepsy harmonize fully with the theory above set forth. Trousseau[4] says:—"As he falls down, the epileptic is not red, as has been wrongly stated, but deadly pale. . . . After these tonic contractions have lasted a few seconds and the thorax remained perfectly motionless, the face begins to redden, and it is then, and then only, and not when the individual falls, that the veins of the neck get distended and the face turns livid, remaining so for a pretty long time." Goodhart[5] says:—"Sometimes even in infants the character of the adult fit is maintained: there is the initial pallor, followed by lividity and convulsions—the fit commencing with a cry and then succeeded by somnolence." Gowers is a most uncompromising opponent of vaso-motor theories of epilepsy; yet there is nothing in his description of an attack of haut mal which is inconsistent with the theory we are adopting. He says[6]:—"The colour of the face, unchanged at first, rapidly becomes pale, then flushed, and ultimately livid as the fixation of the chest by the spasm stops the movements of respiration."

Evidence of vaso-motor action.—I do not know that I can quote from medical literature any direct evidence of peripheral vascular spasm, antecedent to cardiac inhibition. But I have distinctly observed such an occurrence myself in one case. The patient was an old-standing epileptic, and it was determined to try the effect of a seton. Knowing that with this patient fits were liable to be precipitated by slight causes, I was carefully observing the radial pulse during the insertion of the bistoury, which was done without anæsthesia. The immediate result of the puncture was a tightening of the radial, followed by a few almost imperceptible beats, pallor, and a slight general convulsion.

But the initial vaso-constriction, especially when it affects, as seems most usual, the cutaneous area, may be inferred, with but small chance of error, from many observations in medical literature. Horatio C. Wood[7] says: "Not rarely, directly before the paroxysm, the patient complains bitterly of intense coldness." Several of Haig's[8] epileptic patients told him they often shivered with cold just before an attack came on. And Trousseau[9] mentions a case in which the fit commenced by the patient "looking haggard, with his teeth chattering."

It would, however, no doubt be fallacious to infer that the vaso-constriction, responsible for the initial rise of blood pressure, affects always the cutaneous area. Vaso-constriction of the splanchnic area, for instance, is well worthy of consideration. In asphyxia "the[10] cutaneous vessels are widely dilated and engorged, the face is livid, but the abdominal organs are pale and bloodless (Heidenhain)." As a net consequence of these vascular changes, the general blood pressure rises rapidly; and Gowers has placed it on record that accidental asphyxia may lead directly to epilepsy. He says[11] the influence of asphyxia "was well shown in a child, *æt.* 3½, who tried to swallow a large piece of potato, which stuck in his throat and stopped his breath. He became livid, unconscious and convulsed before the obstruction was dislodged with a spoon. The convulsive twitchings continued for some minutes, and 20 minutes passed before he regained consciousness. Three days afterwards he had another fit, and they continued until he came under treatment, several months later."

It would, of course, be fallacious to infer that all the arteries of the body undergo constriction simultaneously: some, as we have seen in asphyxia, undergo dilation concurrently with vaso-constriction elsewhere. Hence it is quite conceivable that during the widespread vaso-constriction which is leading up to the

* The following incident occurred in my own practice. I was preparing to operate; anæsthesia was nearly complete and I happened to have my fingers on the radial pulse To my dismay the pulse flickered, then ceased absolutely. I called to the anæsthetist to commence artificial respiration, but before he could do so the patient went into a violent epileptic convulsion. I cannot help thinking that this patient owed his life to this convulsion. It was his first and, so far as I know, his last.

Digitized by Google

cardiac inhibition preceding the fit, the brain may be hyperæmic, generally or in part, and the face may preserve its colour, or even be more flushed than usual. All we are called upon to assume is that the net result of the vascular changes is a sufficiently rapid rise in the *general* blood pressure.

On this understanding, the vascular changes, occurring as they do synchronously with the rise of blood pressure, offer a reasonable explanation of the epileptic, as of the migrainous and asthmatic auræ. Some of these vascular changes may be peripheral and constrictive. Fagge says[12]: "The patient perhaps experiences a sensation of coldness or weight in a limb, and the part is found on examination to be pale and cold to the touch, and to have its sensibility distinctly blunted." Others may be peripheral and dilative. Trousseau says[13]: "A local determination of blood may occur in the finger for instance, causing it to swell, reddening the skin, and rendering it successively within a very short time red and of a more or less deep violet colour. . . . The swelling is real, not apparent, for rings previously easy suddenly become too tight for the fingers"; or, again, vascular dilation and vascular constriction may alternate. Trousseau says[14]: "The skin may become excessively pale after having been injected for some time."

But many auræ are unassociated with appreciable objective changes in the part, whence they seem to arise. Then it is not unnatural to believe that vascular changes similar in character to the visible peripheral vascular changes above described are taking place in the cerebral centres, and are the immediately responsible factors. On this view we can appreciate the time differences between the auræ of epilepsy and of migraine. In epilepsy, the vascular changes are precipitate; in migraine, deliberate; and Gowers, in contrasting the visual auræ of the two affections, says[15]: "The epileptic sensation is extremely brief and precedes loss of consciousness; the migrainous sensation is deliberate, slow in evolution, occupying more minutes than the seconds during which the epileptic sensation exists."

That a partial cerebral anæmia may give rise to the phenomena of an epileptic aura has been demonstrated experimentally by Leonard Hill, who says[16]: "I myself have twice produced clonic spasms in myself by compression of one carotid. The first effect on applying the compression was a sensation in the eye on the same side; then there followed a sensory march of formication down the opposite side of the body. This began in the fingers, spread up the arm, then down the leg. Finally, clonic spasms of the hand occurred, accompanied by an intense feeling of vertigo and alarm. Consciousness of the clonus was aroused only by the sensation of the hand striking the arm of the chair as it went into clonic spasm. The central motor discharge in the brain seemed to me to be accompanied by no consciousness. These effects of compression of one carotid vary in different men, no doubt in relation to the freedom of anastomosis in the circle of Willis." Schiff had a similar experience.

We are arguing that vaso-constriction is, in some cases at least, the immediate antecedent of the cardiac inhibition which is responsible for the unconsciousness and the convulsions, and that the various auræ are coincident phenomena. If this is true, it ought to be possible by means which promote general vaso-dilation to anticipate the cardiac inhibition and thereby avert an impending fit. This expectation is amply fulfilled. Amyl nitrite causes rapid widespread vaso-dilation; and "Dr. Crichton Browne[17] found that when administered immediately after the appearance of the aura it prevented the fit which would otherwise have come on." "This[18] fact made it seem probable that some more stable remedy of the same class would prove efficacious as a preventive"; but this expectation has not been fulfilled, for the nitrites only defer attacks. Again, warmth to the surface of the body causes vaso-dilation of the cutaneous area; and hot baths, perhaps containing mustard, are a well-tried remedy in the convulsions of young children.

But the tendency to rising blood pressure due to vaso-constriction may be checked by means other than vaso-dilation. A weakening of the cardiac systole will be efficient, and such may accrue from vomiting or nausea. Richter says[19]: "I know of no medicine which will so certainly prevent an epileptic fit as a vomit given an hour before the attack. This, indeed, can only be had recourse to when we can foresee the fit, that is when the disease is periodical or preceded by a forewarning"; and Liveing points out[20] "that it is not always necessary for this curative influence that actual vomiting should occur"—that the induction of nausea only may be sufficient. The modification of cardiac action so involved may be regarded as anticipating and averting the necessity for vagus inhibition, if indeed it be not itself due to a modified form of vagus inhibition.

Hæmorrhage, by reducing the mass of blood, tends to cause a fall of blood pressure, and venesection has often been used with immediate benefit in impending convulsions. Graves says[21]: "Detraction of blood is sure to remove

Digitized by Google

the violence and shorten the duration of the fit." Da Costa, speaking of the status epilepticus, says[22]: "In some cases bleeding has been practised with benefit"; and Broadbent[23] has found that in cases in which there is a continuous high blood pressure between the fits, venesection, especially when combined with calomel, has a marked influence in reducing the number of attacks, and even in some cases of abolishing them altogether.

On the other hand, it is easy to believe that anything which is liable to raise the general blood pressure, whether by vaso-constriction, increased venous obstruction, or increased systolic force, may precipitate convulsions. Trousseau says[24] of a case: "The attacks were . . . brought on by the slightest painful emotion, the least variation of temperature, a draught of cold air." I know an epileptic who frequently has a fit immediately he gets out of bed in the morning, but fits under these circumstances are practically limited to winter; and several mothers of epileptic children have assured me that fits are often brought on by cold or wet feet. Maisonneuve, Lauret, Reynolds and Trousseau all believed that fright is a not infrequent cause of epilepsy in the first instance.[25] And Gowers says[26]: "Mental emotion—fright, excitement, anxiety—is the most potent cause of epilepsy. The most frequent is fright." All these emotional states, but especially fright, are liable to be associated with conspicuous vaso-constriction of the cutaneous area, and it is a commonplace that intense fright may cause the heart to "stand still." May not this stoppage of the heart, *which is no mere figure of speech*, be a compensation for a sudden rise in the general blood pressure, brought about by a rapid and widespread vaso-constriction of the cutaneous area? And, if so, does this not explain how a person may be "frightened into a fit?"

The initial effect of *violent exercise* is, as we have seen, a rise of arterial pressure, amounting to about 20 mm.: hence sudden exertion may precipitate a fit. Esquirol says[27]: "Violent exertion may provoke the seizures." Reynolds[28] knew fits to be brought on by "a violent effort, such as straining to raise a heavy weight." The general convulsions, which Fagge says[29] "are not of very infrequent occurrence" at the end of a violent attack of coughing in pertussis, are explicable in the same way or by the tendency to asphyxia; and Steffen says[30] that "a momentary stoppage of the heart" has been observed under these circumstances.

On the other hand, exercise persisted in tends to lower the general blood pressure, as already mentioned; and Broadbent says[31]: "It is important to note that they [epileptic fits] rarely come on during exertion. . . . This has a practical . . . bearing. We need not forbid epileptics to take exercise, or to ride, or even to cycle in moderation. In this conclusion I am glad to have the concurrence of my friend Dr. Buzzard." Clearly, however, the exercise prescribed for epileptics, as for sufferers from migraine and asthma, must on each occasion be commenced gently, and progressively increased in severity.

The epileptic fits which occur in plumbism are susceptible of explanation by the high blood pressure which rules in this condition. Oliver says[32]: "For the attacks of acute lead encephalopathy nothing gives such good results, in my opinion, as inhalation of nitrite of amyl: the slow pulse under its influence becomes quickened, the arterial tension is reduced, and convulsions are undoubtedly warded off."

Pyrexia, as already stated, involves general vascular relaxation, and the influence of the pyrexial process upon epilepsy is similar to its influence upon migraine and asthma. Hippocrates[33] "stated (*de morbo sacro*) that intermittent fever replaced or mitigated epilepsy, at least temporarily, whence the adage, '*Quartana epilepsiæ vindex appellatur*'; and this view was also upheld by Van Swieten and Esquirol, the latter of whom said that epileptic attacks diminished, and even ceased entirely, upon the intercurrence of febrile attacks (accidents febriles). This was confirmed by Féré, Lannois, and Voisin." Some authors have been so struck with the favourable influence exerted by infectious diseases "over a pre-existing epilepsy that they have advocated the establishment of some of these different processes, such as malaria and erysipelas, to cure the epilepsy."[34]

"The[35] influence of acute diseases on epilepsy has been studied by Bourneville and Bonnaire during an epidemic of measles in the epileptics and idiots at the Bicêtre, and they find that during the course of the intercurrent malady the fits are much decreased in force and frequency. Séglas has also made a series of observations at the Salpetrière and the Bicêtre, and he reaches the following conclusions:—1. Intercurrent diseases have, in the greater number of cases, a favourable influence on epilepsy. 2. In some cases this is only during the intercurrent disease. 3. Febrile disorders modify it most commonly."

Acute gout, as before stated, is a recurrent pyrexia; and Van Swieten and Garrod related cases in which recurrent gout completely replaced recurrent epilepsy. The latter quotes a remarkable case of Dr. Robert Wilson's. "A

Digitized by Google

gentleman[36] had suffered from epilepsy from the age of 20 to 52; the fits were frequent, sometimes occurring as often as once a week. He then had distinct articular gout in one great toe, and afterwards experienced attacks of the same kind, from time to time, up to his death at the age of 72. From the first manifestation of decided gout there was an entire cessation of the epileptic convulsions."

Gowers, after referring to the fact that during an acute febrile disease patients are usually free from attacks, points out that "an exception is scarlet fever, during which they sometimes continue with increased severity." I have no explanation to offer with regard to this exception.

But, as already mentioned in discussing migraine, there is one freely admitted exception to the rule that pyrexia involves general vascular relaxation. During the invasion stage of most fevers there is a tendency to vaso-constriction of the cutaneous area, manifesting itself commonly in chills, which amount in some cases to actual rigor; and this exception throws as much light upon the mechanism of convulsions as upon the mechanism of migraine. We have argued that in rigor extensive vaso-constriction of the cutaneous area is prevented from causing a rise of the general blood pressure by a compensatory vaso-dilation of the muscular layer, and that in many cases of convulsions the factor compensatory of vaso-constriction is vagus inhibition of the heart. Hence the association between rigor and such convulsions is only one degree less close than the association between rigor and migraine; and we can recall, with a much clearer perception of its significance, the old observation that in children many acute diseases, whose invasion in adults would be marked by rigor, commence with general convulsions. Nervous action in children is notoriously precipitate; and it may be that in their case vaso-constriction is often too rapid or too widespread to leave adequate time or room for the compensatory vaso-dilation of rigor, and so calls forth the compensatory cardiac inhibition which leads to convulsion.

We have noted the occurrence of a "malarial migraine" and of a "malarial angina"; these facts, together with the above considerations, will prepare us for the discovery of a "malarial epilepsy." Hobart Amory Hare refers to cases mentioned by Jacobi, Payne and Hamilton, and says that such occur occasionally in the Southern States and in Brazil.[37] "In Hamilton's case a young man who had lived for many years in an exceedingly malarious region had more or less periodic epileptic attacks, attended with great preliminary rise of temperature and intense congestion of the face and head . . . Change of the place of habitation and the use of quinine removed the disease entirely." Clearly, such epileptic fits were substitutive of malarial rigors.

Evidence of Modification of the Heartbeat.—I have already called attention to the "momentary stoppage of the heart" noticed by Steffen in the convulsions associated with pertussis. The same has been noticed by many observers in the more common convulsions included in the term epilepsy. In two cases Moxon[38] had his fingers on the pulse at the wrist during the development of an epileptic fit, and in both the pulse ceased entirely *before the convulsion began*. In another he was auscultating the heart when the sounds ceased suddenly and the patient went into "severe epileptiform convulsions." Moxon's house surgeon, Mr. Lane, had noticed the failure of the pulse at the wrist in two cases. Hughlings Jackson informed Moxon that on several occasions he had known "the pulse to disappear during the paleness of the face in the onset of attacks of petit mal"; and Hilton Fagge[39] was listening to the heart sounds when they suddenly ceased and the patient, a previous epileptic, went into a fainting fit, with "a little twitching of the muscles of one or both hands." Moxon refers to another case in which frequent petit mal was associated invariably with heart stoppage. Broadbent[40] was auscultating a patient when a fit commenced. The patient became pale, unconscious, and exhibited slight quiverings of the muscles of the face and movements of the arms, "but the most striking fact was a complete arrest of the heart for a sufficient time to cause serious anxiety." Quite recently Dr. R. G. Herb[41] was listening to the heart in a case of aortic regurgitation. The sounds ceased, the patient became unconscious, rigid, and went into violent general convulsions; "and in a case reported by Thornton it was proved by the stethoscope that in the first stage of the attack the heart ceased to beat for many seconds."[42]

Some may argue that if stoppage of the heart were other than a mere occasional incident in epileptic fits it should have been observed more frequently; but if we bear in mind the infrequency and the shortness of the duration of the whole epileptic attack, the fact that cessation of the heartbeat occupies only a short period within the attack, and the impossibility of predicting as a rule the exact time of the occurrence of the attack, then on the doctrine of chances it would seem remarkable that stoppage of the heart has been observed so often as is the case. But be that

Digitized by Google

as it may, it may well be that a degree of retardation short of actual stoppage can give rise to cerebral anæmia sufficient to cause convulsions; for it is evident that there may be every grade of vagus inhibition between that which leads to slight retardation of the heartbeat and that which causes cessation; and extreme retardation just before the fit has often been observed.

Dr. Burnett[43] noted a pulse of 20 at times as low as 14 "in the minute before the fit." Horatio C. Wood[44] says: "In syncopal cardiac epilepsy the habitual pulse rate is much below the normal, and at the moment of the attack diminishes to 12, 10 or even 5 per minute." Haig observed that just before a fit the pulse is often slow and of high tension. Broadbent[45] looks upon "convulsive attacks when they occur in connection with an infrequent pulse as a *result* of cerebral anæmia." And Hobart Amory Hare[46] says: "The latest and most elaborate studies on the epileptic pulse with which the writer is acquainted are those of Mons. V. Magnon, who has shown that during the clonic stage of the convulsion the arterial pressure is increased to a very great extent as well as the pulse rate, but that during the first or tonic stage the pulse rate falls, and the rhythm is so altered that a complete systole and diastole may occupy six times the normal period. Afterwards the pulse passes to the normal, or into a condition of increased force and frequency." It is, of course, highly probable that a convulsion, like any other form of sudden violent exertion, may *result* in an abnormally high blood pressure temporarily.

On the hypothesis that cardiac inhibition in some degree is an essential factor in many epileptic fits, we shall have a rational explanation of the favourable influence of belladonna upon epilepsy, which was noticed by Bretonneau, Trousseau, and other physicians who practised in the pre-bromide days[47]; for, as Lauder Brunton observes,[48] "belladonna paralyses the power of the vagus over the heart," and thus diminishes the sensibility of that organ to changes of pressure.

Brain Anæmia the proximate factor in some Convulsions.—That sudden brain anæmia is competent to give rise to all the phenomena of an epileptic fit is well known. Kussmaul ligatured the cervical vessels in rabbits. He says[49]: "General convulsions usually followed in from 8 to 18 seconds after complete withdrawal of arterial blood. . . . We found in every instance that the closing of all four arteries was necessary to produce rapid convulsions. If but one carotid or one subclavian has remained pervious we have never seen convulsions take place, even when the ligature has remained on the other three for several hours."

Similar experiments, leading to even more striking results, have recently been performed by Leonard Hill.[50] This physiologist "has found that artificial cerebral anæmia in cats or monkeys, produced by ligation of the four cerebral arteries, produces tonic spasm. . . . that if the clamp or ligature be loosened on a carotid, so that the blood flows back to the hemisphere, clonic spasms almost immediately occur. This will again give place to tonic spasm on closing the artery; and again on removing the clamp, allowing the blood to flow to the hemisphere, the clonic spasms supervene." Clamping and releasing the supplying blood-vessels must lead to precisely the same vascular conditions of the brain as result from stoppage of the heart, followed by recommencement of its pulsations, and the objective clinical manifestations are identical in both cases.

It seems clear that the intensity of the convulsion is directly proportionate to the degree of cerebral anæmia; for tonic spasm implies a far higher number of muscular contractions than clonic spasm. The gradation of the former into the latter as the circulation recovers and the brain anæmia becomes dispersed may be watched in the human subject: it was especially conspicuous in a case mentioned by Voisin and Pelit[51] "in which a wound that was being dressed stopped bleeding with the onset of the fit, and no pulse could be felt at the wrist; but *at the end of the spasmodic stage* the pulse reappeared, beating 142, the blood pressure rose, and the wound began to bleed freely once more." (The italics are mine.)

Although cerebral anæmia may be the common proximate factor of convulsions, it is not necessary for us to assume that in all such cases the cerebral anæmia results from vagus inhibition compensatory of rapidly rising blood pressure; for example, cerebral anæmia, responsible for convulsions and death, may arise directly through severe hæmorrhage. Nevertheless, I am inclined to think that vaso-constriction or other conditions tending to suddenly raise arterial pressure antecede cerebral anæmia more often than might at first sight be supposed. Goodhart[52] regards swooning as "largely a matter of peripheral spasm." We could explain in this way the syncope which attends cold bathing, and the swooning which the last-mentioned author says[53] may in some cases attend each violent paroxysm of coughing might be explained by vagus inhibition compensatory of sudden rise of blood pressure.

Digitized by Google

Such considerations tend to the conclusion that many syncopal attacks differ from epileptic attacks in degree rather than in kind, and this conception receives support from many sides. Violent paroxysmal cough, which Goodhart says may lead to swooning, leads in other cases, as we have seen, to convulsions. The gradation between syncope and convulsion is conspicuous in hæmorrhage: profuse hæmorrhage will account for a high grade of cerebral anæmia. Syncope is the commonest result, but general convulsions are "the final phenomena of death under these circumstances."[54] Fagge says[55]: "One great distinction between the attacks which are epileptic and those which may properly be referred to fainting is that the former generally, if not always, occur without any definite exciting cause." But this distinction not infrequently fails. For example, a hospital wardsman, attending his first operation case, became, at the first sight of blood, blanched, and fell to the ground; not suddenly, but slowly, as in an ordinary faint. The other attendants were directed to loosen his collar, and leave him to recover, but immediately he went into slight, but quite distinct, general convulsions, lasting perhaps three-quarters of a minute. Never before had he suffered a similar attack, nor has he done so since. Such a case might be classified in either category, and I have seen others presenting equal difficulty.

Finally, I am not sure that we are as yet fully entitled to deny the possibility of convulsions arising through a sudden constriction of the cerebral arteries—a constriction inadequately extensive to raise the general blood pressure to the point at which cardiac inhibition is demanded, but adequately intense to cause marked anæmia in the area of distribution. So far we have considered mainly seizure —whether syncopal from emotion or hæmorrhage, or epileptic, major or minor—in which consciousness is lost or greatly impaired; and in all such the cerebral anæmia is presumably more or less general. But it is admitted that minor epileptic attacks may occur without the slightest, even momentary, loss of consciousness. Gowers[56] says: "In the cases in which the minor attacks consist of sudden starts, or of a visual sensation, consciousness may be apparently unaffected." H. C. Wood describes a case[57] in which "the patient had a distinct aura in the hand, rising up the arm in the usual manner, but suffering arrest in the neck; at which time without any loss of consciousness there were violent convulsive movements of the muscles below the position to which the aura had reached." In the latter case it is difficult to avoid the inference that the aura and the localised convulsions were due to a localised anæmia of the cerebral centres concerned, occasioned by a localised constriction of the supplying artery or arteries; and this view receives support from the experiences of Leonard Hill when compressing one carotid artery. It is true Kussmaul found, as already stated, that perviousness of any one of the four cerebral arteries is sufficient to prevent convulsions; but anastomosis between these arteries within the cranium is extremely free. It is otherwise with arteries which arise beyond the circle of Willis; and there seems no reason why with them vaso-constriction should not lead to sufficient cerebral anæmia of the centre to cause convulsions in the corresponding limb. Broadbent[58] says: "It will be remembered that Hughlings Jackson attributed convulsions to spasms of the cortical arterioles; and I may, perhaps, add that for many years I have held the view that uræmic convulsions are due to stoppage of the circulation in the cortical capillaries, and not to the direct action of any poison." We know now that the cortical arterioles are well supplied with nerves; and extreme unilateral variations in the calibre of the intra-ocular arteries—the visible arteries nearest to the cerebral arteries — have been frequently observed.

So far we have argued as if cerebral anæmia were the proximate factor in all convulsions—the irritant or stimulus which calls forth the sudden discharge—but there is nothing to be gained by taking so exclusive a view. If it is admitted that in some cases this pathological conception holds good, that is sufficient for the purpose; for it seems highly probable that many conditions other than anæmia are efficient. Gowers states that in some cases no alteration in the cardiac or vascular conditions precede a fit; and it is known that electrical stimulation of the cortex can give rise to convulsive movements in the corresponding limb, although I am not aware whether in these experiments localised vaso-constriction of the cortical arterioles has been excluded. Again, "hemiplegia occurring at any period of life may be followed by recurring convulsions; but this sequel is far more frequent in the cases in which the onset of the paralysis is during childhood"[59]; and it may reasonably be argued that a damage less gross and obvious than is implied in hemiplegia may have a similar influence.

References.—(1) Diseases of the Nervous System, 1893, vol. ii., p. 755. (2) Croonian Lectures, *Lancet*, April, 23rd, 1881, p. 650. (3) Ibid. (4) Clinical Medicine, New Syd. Soc., vol. i., pp. 43 and 45. (5) Diseases of Children, 6th edition, p. 523. (6) Diseases of the Nervous System, 1893, vol. ii., p. 736. (7) American Text-book of Medicine, Pepper, 1893, vol. i., p. 618. (8) Uric Acid in Disease, 1897, p. 188. (9) Clinical Medicine, New Syd. Soc., vol. i.,

Digitized by Google

p. 41. (10) Manual of Physiology, Stewart, 1899, p. 163. (11) Epilepsy, 1901, p. 32. (12) Text-book of Medicine, 1891, vol. i., p. 751. (13) Clinical Medicine, New Syd. Soc., vol. i., p. 61. (14) Ibid. (15) *B.M.J.*, 1895, vol. i., p. 1625. (16) The Physiology and Pathology of the Cerebral Circulation, p. 142. (17) Pharmacology, Therapeutics and Materia Medica, Lauder Brunton, pp. 711, 712. (18) Wharton Sinkler in Pepper's American Text-book of Medicine, 1893, p. 1092. (19) Megrim and Sick Headache, Liveing, 1873, p. 368. (20) Ibid., p. 370. (21) Clinical Medicine, New Syd. Soc., vol. ii., p. 358. (22) System of Therapeutics, H. A. Hare, vol. iii., p. 251. (23) The Pulse, p. 251, *et seq.* (24) Clinical Medicine, New Syd. Soc., vol. i., p. 40. (25) Megrim and Sick Headache, Liveing, 1873, p. 185. (26) Dis. Nerv. Syst., 1895, vol. ii., p. 782. (27) Megrim and Sick Headache, Liveing, 1873, p. 171. (28) Ibid. (29) Text-book Med., 1891, vol. i., p. 1138. (30) Ibid. (31) *British Med. Journal*, Jan. 4th, 1902. (32) *British Med. Journal*, vol. i., p. 691. (33) *British Med. Journal*, Epitome, July, 27th, 1901. (34) *Medical Annual*, 1901, p. 241. (35) Epilepsy, its Pathology and Treatment, H. A. Hare, 1890, p. 222. (36) Gout and Rheumatic Gout, Garrod. 3rd edition, p. 460. (37) Epilepsy, its Pathology and Treatment, 1890, p. 92. (38) Croonian Lectures, *Lancet*, 1881, vol. i., p. 649. (39) Text-book of Medicine, vol. i., p. 750. (40) *Lancet*, 1887, vol. i., p. 710. (41) *British Med. Journal*, April 6th, 1901. (42) Epilepsy, etc., H. A. Hare, p. 83. (43) Megrim and Sick Headache, Liveing, 1873, p. 333. (44) American Text-book of Medicine, 1873, Pepper, p. 618. (45) The Pulse, p. 122. (46) Epilepsy, etc., p. 26. (47) Clinical Medicine, New Syd. Soc., Trousseau, vol. i, p. 94. (48) Pharmacology, Therapeutics and Materia Medica, p. 40. (49) Quoted by Moxon, Croonian Lectures, *Lancet*, 1881, April 23rd, p. 649. (50) Quoted by F. W. Mott, Croonian Lectures, *Lancet*, 1900, vol. i., p. 1849. (51) Uric Acid in Disease, Haig, 1897, p. 228. (52) *Lancet*, 1901, Dec. 21st, p. 1715. (53) Ibid., 1714. (54) The Pulse, Broadbent, p. 282. (55) Text-book of Medicine, 1891, vol. ii., p. 15. (56) Diseases of the Nervous System, 1893, vol. ii., p. 746. (57) American Text-book of Medicine, Pepper, 1893, pp. 615, 616. (58) *British Med. Journal*, Jan. 4th, 1902. (59) Epilepsy, Gowers, 1901, p. 154.

A CASE OF RECURRENT PARALYSIS OF THE THIRD NERVE.

By Sinclair Gillies, M.D. (Lond.), Sydney; Hon. Assistant Physician, Prince Alfred Hospital, Sydney.

T. McC., *æt.* 68, consulted me on May 18th for "ptosis of his left eye" of 10 days' duration.

He has had similar attacks to the present one at intervals of a year or more for 40 years.

The attacks all begin in the usual way. For a few days before the attack he feels in unusually good health; then headache begins. The pain is confined to the left side of the head, passing through from the front to the back—"not over the head." It is very severe, but does not keep him awake at night. It differs from a bilious headache in having a spot of maximum intensity about the size of a sixpence above the inner third of the left eyebrow, and in the fact that the pain seems to shoot right through the head to the back. This spot becomes tender to touch. The headache is never accompanied by vomiting, and there is no pain in the eye itself. The headache gradually increases in intensity for a week, and during this time the left eyelid gradually droops till at the end of a week the eye is quite closed. The headache then ceases. With the drooping of the eye external squint occurs, varying in intensity in different attacks. "In bad attacks the double images seem at an angle of 45 deg." Ptosis and squint remain stationary for a week and then begin to recover, and in a week pass off, leaving the eye, as he thinks, normal. The whole cycle takes about three weeks.

Attacks occur at one or more years' interval; the longer the interval the more severe the attack. He thinks he has warded off two or three attacks during the past year by the use of homœopathic doses of gelsemium. He is not subject to headaches, apart from these attacks, and beyond slight attacks of influenza mentions no illness. He gives no history of syphilis, gout, or neurosis of any kind. His father died, *æt.* 62, of urinary trouble; his mother, *æt.* 73, of cancer. He has had 12 brothers and sisters. In none is there history of similar attacks, or of migraine, epilepsy, or other neurosis.

The attack which I saw had begun in the usual way, ten days before he came to me. When seen, there was complete ptosis of the left eye, but the eye could occasionally be opened on effort, especially if the right lash was held down. There was marked external strabismus of the left eye. The eye moved freely outwards, but could not be moved inwards beyond the middle line, nor upwards nor downwards. The left pupil was of medium size, not dilated. It did not react to either light or accommodation. Apparently he could accommodate when asked to read, showing absence of cycloplegia. The fundi were normal; the right eye was normal; the visual fields were not contracted. Examination of thorax, abdomen and nervous system showed nothing abnormal. His urine was normal, but he has some nocturnal frequency, due probably to prostatic hypertrophy. His bowels act daily, and his digestion is good. He has no teeth, but wears artificial ones. His arteries show no signs of atheroma; his frontal and maxillary sinuses are normal.

On the day after seeing him he complained of neuralgic pain down the left side of his nose. Three days later improvement commenced. On May 26th, *i.e.*, 18th day of attack, movements of eye had all returned, except upwards, which was limited. The left pupil did not react to light direct or consensual, and in the dusk was smaller than the right. It reacted to accommodation. Reaction to skin stimulation was doubtful. Ten days later I noted the left pupil is smaller than the right; does not react to light direct or indirect. Upward movement of the left eyeball is weak and deficient; convergence is also slightly impaired. As you will see, that is his condition at the present time.

I thought this case might be of interest to you, first on account of its rarity, and secondly from the obscurity surrounding its causation.

Gowers, in his "Diseases of the Nervous System," gives a good account of the disease,

Digitized by Google

describing it as occurring more frequently in females than in males. It often dates from early childhood, and the interval between attacks varies from months to years. He describes the onset as occurring with pain in the eye, and being often accompanied by severe headache and vomiting.

The third nerve only is generally affected, but sometimes also the 6th. Palsy may be complete or incomplete, and in many cases slight defect of power persists in the interval between the attacks. In one case contraction of the fields of vision was noted.

Charcot describes the affection as Migraine Ophthalmique, and considers it a variety of migraine.

Gowers, while considering that it more closely resembles migraine than any other lesion, points out that it differs markedly in the long duration of the attacks, and in its motor character.

Möbius (quoted in "Progressive Medicine," September, 1902), in describing a case, asserts that it always begins before 25 years, and that it is always accompanied by headache and vomiting or nausea (neither vomiting nor nausea were present in the case shown to-night). He agrees with Gowers that it is not a variety of migraine, and describes two cases where post-mortem a tumour was found on the third nerve at the base of the brain. Leszynsky (*ibid.*) says he has seen five cases, and surmises that the symptoms are caused by pressure of the cerebral hemispheres due to increased vascularity attending an attack of migraine on a tumour on the third nerve and so interfering with conductivity.

J. M. Russell (B.M.J., 2/5/03) records a case in a boy aged 13, dating from birth, where attacks were frequent and the cycle completed in two days, leaving partial paralysis in the interval. He considers it to be migraine with ophthalmoplegia.

In the case under discussion, beyond the periodicity and unilateral nature of the headache, there seems little resemblance to migraine. The headache begins gradually, and progresses with increasing intensity for a week, when complete ptosis occurs, and it then lessens. It is not accompanied by vomiting or nausea. The partial paralysis persisting during the interval between the attacks suggests organic change in the nucleus or nerve trunk, and the fact that the paralysis involves one nerve only also localises the lesion at or below the third nucleus.

How to explain the cycle pains, paralysis and recovery is more difficult. Mere pressure on the third nerve would produce paralysis, not pain; and invocation of unilateral pressure by engorged cerebral hemispheres on a nerve tumour is a far from satisfactory explanation.

The nature of the disease is really unknown. The few post-mortems recorded tend to show lesions in the peripheral nerve, not the nucleus, but fail to throw any light on its periodic nature.

(Read before the New South Wales Branch of the British Medical Association.)

DIABETES.

By C. Reissmann, M.A., M.D. (Camb.), B.Sc., M.R.C.P. (late University and Broderip Scholar, and Demonstrator of Pathology, Middlesex Hospital, London), Adelaide.

(*Continued from page 344.*)

Now, it must be admitted that after allowing for all cases of diabetes in which a lesion of the pancreas is found at death, there remains a considerable number of cases in which the pancreas appears normal in all respects. From a pathological investigation, therefore, we infer that there are two kinds of diabetes—pancreatic diabetes and non-pancreatic diabetes. Clinically we also recognise two distinct types of diabetes; and it is possible, now that we possess a fuller knowledge of the minute anatomy and pathology of the pancreas, that the two types of the clinician may be identified with the two types of the pathologist.

Clinically all diabetics have one symptom in common—they pass dextrose in the urine. In some cases dextrose is the only abnormal constituent of the urine, but in other cases the urine contains, in addition to dextrose, a group of substances known as the "acetone series," including acetone, diacetic acid, and beta-hydroxybutyric acid. If dextrose be the only faulty substance in the urine, the condition may not be serious, but if the urine contains the "acetone series" in addition to dextrose, the condition is more grave. This, then, is a matter of the very first importance, and the presence or absence of the "acetone series" in the urine affords a test by means of which we can separate clinically all cases of diabetes into two great classes. Pavy describes these two types of diabetes as the alimentary type and the composite type. In the alimentary type dextrose alone is voided in the urine; in the composite type the "acetone series" appears in the urine in addition to dextrose. In health, as has already been explained, carbohydrate food is converted in the intestinal tract chiefly into dextrose, and that this dextrose (as Pavy teaches), sooner or later, either in the walls of the small intestine or in the liver, enters into combination with some body, and is synthesised into proteid, and as such reaches

Digitized by Google

the general circulation. Now, in alimentary diabetes this synthesis, to a greater or lesser extent, fails to take place. Some or all the dextrose which is absorbed in the intestine fails to be built up into proteid; it therefore passes through the liver unused and reaches the general circulation. Dextrose is highly diffusible; its molecule being relatively small, therefore it rapidly escapes from the circulation in the kidney, and appears in the urine. Here, then, the eliminated sugar is derived solely from the dextrose, formed from food in the alimentary canal; and it is for this reason that the term alimentary diabetes has been applied to it. In this type of diabetes the patient suffers in two ways: he has to bear the loss of energy supplied by the food. Thus, suppose a man lose in his urine 30 grammes of dextrose in 24 hours, this means a waste of 98 major calories of heat, or an amount of heat that is all but sufficient to raise a litre of water from the freezing point to the boiling point.

Secondly, he suffers from the toxic effects of dextrose circulating in excess in the blood, such as boils, carbuncles, perforating ulcer, etc. The alimentary type of diabetes is the mild type, the hopeful type. The symptoms can usually be kept in abeyance and the disease often cured by the simple elimination from the patient's food of some or all carbohydrate.

Now, in the composite type of diabetes, besides this failure of assimilation of the sugar derived from the food, something further happens—something which leads to the appearance in the urine of the so-called "acetone series." These substances—acetone, diacetic acid and beta-oxybutyric acid—are the products of a retrograde tissue metamorphosis; in other words, they are derived from proteid. But proteids, as we have already seen, are glucosides; they yield sugar on destruction. In this form of diabetes, then, some at least of the sugar is derived directly from the proteids of the tissues. In some cases this destruction of proteids is considerable, and it has been estimated that nearly 60 per cent. of the disintegrated proteid may come off as sugar. Hence the severe wasting, hence the failure of treatment by dieting alone, hence the severe toxic symptoms followed by coma, all of which are characteristic of this grave or composite type of diabetes. As Pavy puts it, "in alimentary diabetes the fault lies with the upward line of metabolism, or that which is concerned in placing food carbohydrate in the right position for passing to utilisation. In the composite form of diabetes, wrongness of descending metabolism occurs in addition to wrongness of the other, and the wrongness of descent is attended with the production of sugar and the acetone series."

Some observers maintain that the presence in the blood of the acetone series, or of their precursors, is the cause of diabetic coma. Others hold that coma is due to the diminished alkalinity of the blood, the sodium carbonate and phosphate being neutralised by the diacetic and oxybutyric acids. And it may here be mentioned that it has been recently shown that in epilepsy and epileptic coma the alkalinity of the blood is also distinctly diminished. Grube, a short time ago, in a paper read before the Pathological Society of London, showed that small quantities of acetone may be present in the urine in health, that acetone is only poisonous in very large doses, and that the symptoms resulting are not those of diabetic coma. But in a series of 12 experiments on cats, he found that the intravenous injection of beta-amidobutyric acid was followed by narcosis, and diacetic acid appeared in the urine, and sometimes also acetone. Hale White tells us that the prevailing view of the cause of coma is that it results from the presence in the blood of beta-hydroxybutyric acid, of which as much as 119 grammes have been said to be excreted in a day.

Having now reviewed the more recent views of the nature and pathology of diabetes, it remains for us to see how far these researches are of practical value in the diagnosis and treatment of diabetic patients.

The chief diagnostic feature of diabetes is the discovery of dextrose in the urine; and the usual agent employed for its detection is Fehling's fluid, which dextrose rapidly reduces, giving a yellow or red precipitate of suboxide of copper.

Fehling's fluid, which is a standard solution of sulphate of copper, potash and Rochelle salt (sodium hydrogen ammonium tartrate) is somewhat unstable. The Rochelle salt is apt to decompose with age, or by the action of sunlight, forming racemic acid, and this acid may reduce copper sulphate. It is, therefore, necessary to use pure reagents, and to mix the the solutions freshly and boil before each test. Urine containing dextrose reduces Fehling's fluid immediately on boiling, unless albumen is present when the appearance of the precipitate is delayed. But a reduction of Fehling's solution by hot urine does not of necessity prove the presence of dextrose in the urine.

Lactose, which may occur in the urine of pregnant women, reduces copper sulphate. And Savage and Hale White have shown that the reduction which occurs with the urine of lunatics is usually due to kreatin and other reducing bodies. Again, glyconuric acid, a

Digitized by Google

substance occasionally found in the urine of patients who are taking chloral or morphine, or some of the coal tar preparations, such as phenacetin, or fusel oil, or tertiary amyl alcohol, will reduce copper sulphate. Alkapton, which sometimes occurs in the urine, reduces copper sulphate. If, therefore, the urine of a patient gives a positive reaction with Fehling's fluid, we must always use some confirmatory test before we conclude that the urine contains dextrose. Boil ten drops of urine for a few minutes with a few cubic centimetres of a solution of sodium nitro-phenyl-propiolate. If dextrose is present, indigo blue is formed. It is claimed for this test that it gives negative results with uric acid, glyconuric acid and other substances that may reduce copper sulphate. Messrs. Burroughs, Wellcome & Co. supply this reagent in convenient tabloid form; the test is simple, and I have found it satisfactory. The fermentation test is equally valuable. Yeast is obtainable from any baker's shop. A small lump is placed in a test tube, which is filled with urine, and inverted over urine. Carbonic acid gas develops on standing. The phenyl-hydrazine test is an infallible test for dextrose. No chemist making an analysis of a solution suspected to contain dextrose would be content to record his result without having performed the phenyl-hydrazine test. It is a little astonishing, therefore, that this test is not made use of more frequently by physicians. One places in a test tube a few grains of phenyl-hydrazine hydrochlorate, and about twice the quantity of sodium acetate; the tube is then filled with urine and shaken to dissolve the crystals. It is then placed in boiling water for twenty minutes or longer. A cigarette tin or saucepan containing boiling water over a spirit lamp makes a suitable water bath. On cooling, or even while hot, a yellow crystalline precipitate falls. This must be examined under a microscope, for other substances will yield an amorphous precipitate. The crystals yielded by dextrose are arranged in sheaves of radiating long needles (glucosazone). The crystals yielded by lactose are similar but easily distinguished by the microscope. Minute traces of dextrose may be detected by this test. The only objection urged against the test is that it takes time, but after all it does not require attention. I have had some difficulty in obtaining the hydrochlorate of phenyl-hydrazine in this State, but the liquid phenyl-hydrazine is kept by the wholesale chemists, and by using a few drops of this liquid with an equal volume of strong hydrochloric acid the test may be applied as already described.

Having in this way ascertained that the patient has dextrosuria and is therefore probably a diabetic, we have next to decide to which type he belongs, whether to the alimentary type or to the composite type. It must, however, be remarked that it is a vexed question whether every patient who has dextrose in his urine is to be considered a diabetic. For instance, patients with exophthalmic goitre sometimes pass an abundance of sugar in their urine. Again, after an injury to the nervous system transient dextrosuria may appear. For the present purpose all cases of dextrosuria may be included. And, as we have seen, the presence or absence of the acetone series of compounds—acetone, diacetic acid, and beta-hydroxybutyric acid—will decide the type of the case. Now, as a matter of fact, it is necessary only to test for diacetic acid. For acetone may be present in small quantities in healthy urine, therefore, the detection of it alone is not sufficient to decide the type to which the case belongs. Secondly, diacetic acid is never present alone in the urine; it is always associated with acetone, both of these products being derived from oxybutyric acid. The test for oxybutyric acid is difficult, but it is a simple matter to identify diacetic acid. A few drops of the liquor ferri perchloridi are added to some urine in a test tube; a white precipitate of phosphate of iron falls, which is dissolved by an excess of the reagent; a port wine colour then develops if diacetic acid is present. Of course it must be remembered that a violet colour will always develop with ferric chloride if phenol or one of its derivatives as the salicylates is present in the urine. In the latter case the exhibition of the medicine must be discontinued for a few days and the ferric chloride test applied again. Salicylates are sometimes used as preservatives for food; the violet colour may therefore remain even after stopping all medicines. But there is no risk of confusing this with the distinct port wine colour given by diacetic acid. To discover oxybutyric acid one must use the polarimeter. It is the lævo-rotatory acid that is found in the urine. Its detection will be hindered by the presence of the dextro-rotatory sugar—glucose—which must first be removed by fermentation. Acetone may be recognised by its sweet smell and by the following test:—A fragment of nitro-prusside of sodium is added to a little urine in a test tube. On addition of a solution of caustic soda a cherry-red colour appears which soon fades; on the further addition of acetic acid in excess the solution becomes carmine red. However, I repeat, to decide whether a case belongs to the alimentary type or to the composite type, it is only necessary to try the ferric chloride reaction. And Hale White asserts that no case of sugar in the urine has been even superficially examined

Digitized by Google

unless the ferric chloride test has been employed, while Pavy states that when the acetone series is discovered to a large extent in a case, it may be safely concluded that life is not likely to last long. If a case belong to the alimentary type, the loss of sugar can be arrested by a greater or lesser exclusion of carbohydrates from the diet. If, on the other hand, the case belong to the composite type, the most rigid exclusion of carbohydrate food will not arrest glycosuria. When, therefore, we have decided that a patient has diabetes, and that he belongs to the alimentary type, our treatment should consist of a proper regulation of his diet. We first ascertain, at least approximately, how much carbohydrate the patient is daily ingesting. Carbohydrates occur in varying proportion in a large number of foods. Bread is a standard article of diet, and it is useful to know the carbohydrate equivalent of various foods in terms of ounces of bread. Robert Hutchison gives the following table:—

The quantity of carbohydrate contained in				is equivalent to that in 6 ozs. cooked potatoes
2 ozs. bread	,,	,,	,,	2 ozs. pea or lentil flour
2 ozs. bread	,,	,,	,,	17 ozs. rice
2 ozs. bread	,,	,,	,,	1½ ozs. oats, barley, or maize flour
2 ozs. bread	,,	,,	,,	1⅔ ozs. cornflour, arrowroot, sago, tapioca, or rice flour
2 ozs. bread	,,	,,	,,	10-15 ozs. sweet fruits
2 ozs. bread	,,	,,	,,	40 ozs. apples.

In order to ascertain how much carbohydrate an alimentary diabetic can assimilate, and what carbohydrate diet we may allow him, we can for example commence excluding from his diet every article of carbohydrate food with the exception say of bread. Of this we will allow say 15 ozs. daily. The amount of sugar passed in the urine is estimated day by day, and soon it will be found that the total daily excretion of sugar will have become very nearly constant. Let us suppose this to be 200 grains of sugar in 24 hours. We now reduce the daily allowance of bread to say 10 ozs. and the output of sugar will be reduced say to 120 grains. The bread allowance is then still further curtailed, and the sugar estimated, until a point is reached when no sugar is found in the urine. Suppose this to take place when the patient is taking 6 ozs. of bread a day. We now have learned how much carbohydrate the patient is able to assimilate without suffering loss, and by a reference to our table we can now allow a mixed carbohydrate diet equivalent to 6 ozs. of bread without sugar reappearing in the urine. Thus we could prescribe 3 ozs. of bread with 3 ozs. potatoes and rather more than an ounce of tapioca. In order to compensate for the loss of energy supplied to the body by curtailing the carbohydrate food, it is usually recommended that we should increase the quantity of fat in the diet, and butter, bacon, cream, fat meat such as pork, sardines in oil, &c., should enter largely into the dietary of such a case. Careful dieting, therefore, is the chief and in most cases the only form of treatment that is needful for a case of alimentary diabetes. But if all that happens in alimentary diabetes is that a certain portion of food (dextrose) is wasted, why, it may be asked, should we take such pains to stay it? The patient does not suffer from lack of food; what matter if a certain proportion of it run to waste in the urine, just as a portion may be wasted in the fæces. There are two answers to this question: firstly, there is very little doubt that a case of alimentary diabetes if left untreated may become a case of composite diabetes; and secondly, dextrose circulating in the body for a length of time in anything more than very small quantities acts as a toxin. It has been shown, by experiments on dogs, that the injection of large quantities of dextrose subcutaneously, so that it reaches the general tissues of the body, and is not dealt with by the liver, or at once eliminated by the kidneys, causes a marked increase of proteid katabolism, and its toxic effects have been compared with those of phosphorus poisoning.

Further, the presence of excess of sugar in the tissues certainly renders the body more vulnerable to the action of micro-organisms. Clinically this is well established; and experimentally it has been shown that if the injection of a subminimal dose of staphylococci into an animal be followed by an injection of normal saline fluid, no suppuration ensues, but if instead it be followed by the injection of a sterile solution of sugar, then suppuration occurs. This fact has important bearing on the question of operative interference in cases of diabetes, to which we shall shortly refer. But for the present we have shown that there are urgent reasons for our desire to stay the glycosuria in alimentary diabetes.

Composite diabetes is a more serious affection, and in its treatment we meet with great difficulties. Here the dextrosuria has a twofold origin. It comes from malassimilated carbohydrate food and from faulty tissue disintegration. And while rational dieting will save the waste of food it will not stay proteid disintegration, though undoubtedly it may lessen it. Dieting is therefore of importance also in composite diabetes. And it must be remembered that in this severe type of diabetes, like the other, the power to assimilate sugar from food is not entirely lost. Indeed the complete and sudden withdrawal of carbohydrate food is

Digitized by Google

fraught with danger, and may be followed by coma. Therefore, before we can arrange our precise course of treatment in any particular case of composite diabetes, we must ascertain how much of the eliminated sugar comes from carbohydrate food, and how much comes from the tissue proteids. In order to decide this we order a diet with a fixed and known quantity of carbohydrate, precisely as in a case of alimentary diabetes. This diet is continued for a few days until the daily loss of sugar becomes practically constant. We may now daily reduce the amount of carbohydrate food, always estimating the amount of sugar eliminated, until we come to a point below which further reduction of daily allowance of carbohydrate fails to cause any diminution in the loss of dextrose in the urine. The amount of sugar now found in the urine is an index of the amount of proteid destruction. It is well to take a careful note of the amount of carbohydrate the patient can take without affecting the loss of sugar by the urine; it can be noted in terms of ounces of bread, and it will serve as a guide when we wish at a later date to determine the progress of the case.

No strict rules can be laid down for the further dieting of the case. For while some patients seem to do well when a small quantity of carbohydrate is allowed, perhaps the majority require a diet that is absolutely free from carbohydrate. Indeed it is not infrequently observed that while on a carbohydrate free diet the administration of sugar in a composite diabetic may act as a direct excitant to further sugar formation in the body. This is another illustration of the toxic action of dextrose. A small quantity of sugar taken by mouth may lead to the appearance of an amount of sugar in the urine greater than the total amount of sugar ingested. Now it is an interesting fact that while diabetic patients are unable to assimilate dextrose and its precursors, as starch, etc., they can almost always make use of lævulose and its percursor inulin. Lævulose has the same percentage composition and the same molecular weight as dextrose ($C_6H_{12}O_6$). But it differs from dextrose in that the atoms are arranged in a different manner in the molecule. Dextrose is an aldehyde; it may be written thus, R—COH. Lævulose is a ketone; it may be written thus, R'—CO.

Now the chemical reactions of aldehydes are similar to, but not identical, with those of ketones. In diabetes something happens by which a certain substance dextrose, having the chemical structure of an aldehyde, fails to be of avail in the synthesis of proteid. But this is no reason why a substance, although of the same percentage composition, but having the structure of a ketone, should not be made use of. Lævulose is, therefore, assimilated as in health, and most diabetic patients may take it with impunity. It is a substance sweeter than cane sugar, but more expensive. It costs a shilling an ounce in England. Instead of lævulose we may give the starch from which it is derived, namely inulin. Inulin occurs in Jerusalem artichokes to the extent of 2 per cent. This vegetable contains no ordinary starch, but a little sugar. Sour oranges contain only 2 per cent.—3 per cent. of carbohydrate, of which lævulose is the chief. Dahlia tubers contain a relatively large quantity of inulin. These tubers may be easily cultivated in this State, and they form a useful vegetable food for diabetic patients. Turnips may practically be always taken by diabetic patients. They contain only 5 per cent. of carbohydrate, which occurs not in the form of starch or sugar (of which none is present) but as the so-called pectose bodies. The pectoses are substances which give fruits their property of forming jellies when boiled; they appear to form a rare sugar pentose, on digestion. There are many so-called diabetic foods in the market, which are reputed to be free from carbohydrate and which are recommended for use by the makers, where a strictly carbohydrate free diet is ordered. Unfortunately most of these, like gluten bread, usually contain some, and at times even a considerable amount of carbohydrate. An ideal food for diabetic patients is casein. Not only is casein free from carbohydrate, but it differs from all proteids in that on decomposition it yields little or no sugar. It alone is not a glucoside. Casein is itself a decomposition product of a proteid, the other constituents of which are lactose and the fat of milk. The best and cheapest preparation of casein is plasmon. Plasmon is casein rendered soluble by combination with bicarbonate of soda. It is a tasteless powder, and is almost completely absorbed without waste. Plasmon costs 2s 6d a pound in London, but in this State the cost is greater (about 4s a pound). There ought to be no difficulty in obtaining a cheap preparation of casein if sufficient demand existed, for it is usually recovered from separated milk. A local chemist (Mr. Newbery, of Norwood) thinks he can supply it at about 2s 6d a pound.

Besides attending to the diet of a composite diabetic we must attempt to check the destruction of proteids in the tissues. Various drugs have been recommended for this purpose. The most efficacious appear to be codeine, morphine, nitrate of uranium and the salicylates of which aspirin (salicylo-acetic acid) seems to be most useful. Hitherto all attempts at

Digitized by Google

organotherapy have ended alike in failure. Pancreas has been given raw, or as an extract; and various preparations of the gland have been injected subcutaneously. Portions of sheep's pancreas have also been grafted under the skin. But no success has yet attended these experiments. Some time ago Starling showed that the flow of pancreatic juice is not a reflex act, but is directly dependent upon the absorption into the blood of a substance produced in the mucous membrane of the small intestine, termed secretin. This secretin is easily obtained from scrapings of the mucous membrane of the duodenum. In the hope that it might also stimulate the secretive activity of the islands of Langerhans in the pancreas, secretin has been administered to diabetic patients. But the results have been disappointing. After all, nothing can make a degenerated gland perform a healthy function.

The treatment of coma is likewise unsatisfactory. Temporary recovery sometimes follows transfusion. Some time ago I transfused a case of diabetic coma with about two pints of normal saline solution. The patient recovered sufficiently to carry on a rational conversation with his friends. But he soon again lapsed into coma and died. A certain measure of success has followed the administration of alkalis, either by mouth, or subcutaneously, or by intravenous transfusion. The treatment is indicated by the diminished alkalinity of the blood, and by the presence of oxybutyric and diacetic acids. Some cases of marked success have been recorded. Hale White recommends that if the patient be a little drowsy 100 grs. of bicarbonate of soda should be dissolved in a pint of milk, and three or four pints of this mixture taken in 24 hours. If the coma deepen, inject a solution of 200 grs. of bicarbonate of soda under the skin. In a severe case of diabetes with strong ferric chloride reaction but no coma he orders 50-100 grs. bicarbonate of soda daily given in milk.

A question which often presents itself, and to which I would briefly refer in conclusion, is how far are we justified in performing surgical operations on diabetic subjects? A valuable paper on this subject was published by Phillips last year. At one time, not very long ago, it was thought that any operation on a diabetic patient was fraught with great danger. The advent of aseptic surgery has changed this. I have already referred to the fact that the presence of sugar in the tissues renders them more vulnerable to the action of micro-organisms. So long as we are able to keep all wounds perfectly aseptic, the additional risk to the patient on account of his glycosuria is a relatively small one. But if, in addition to the presence of sugar, the urine gives a ferric chloride reaction, the risk is a greater one, but yet not too great to negative an operation of importance. If, however, the urine gives a strong ferric chloride reaction, there is danger that coma may supervene.

A few figures will illustrate the fact that diabetic patients may recover after severe surgical operations. Sixteen cases of operations on the face and mouth are reported, mostly for epithelioma. Of these, 11 recovered, *i.e.* 68·75 per cent. Fifteen operations on the breast for malignant tumours are recorded; in six of these glands were also removed, 11 recovered, or 86·6 per cent. The two deaths included a woman of 61 with a scirrhus of ten years standing. In her the wound became septic on the 14th day after operation. The second case was a woman aged 64 with carcinoma of 18 months standing; she developed erysipelas. Twenty-four operations are recorded on the female generative organs on 23 patients, with 5 deaths. This is equivalent to 79·16 per cent. successful operations. The successful cases include 6 hysterectomies and 3 ovariotomies. Fifteen abdominal operations are recorded, with 11 recoveries, or 73·3 per cent. Three operations on the rectum are published; of these cases one died. This was after a Kraske's operation.

There can be very little doubt that if we attend firstly, to the exclusion from operation of all cases in whom the danger signal of a strong ferric chloride reaction appears; and, secondly, if we are scrupulously careful to take every aseptic precaution, then we shall find that the percentage of recoveries from even dangerous operations will be increased. In all but the most urgent cases it is well to treat the diabetic condition before we recommend a surgical operation.

REFERENCES.—(1) Claude Bernard, by Sir Michael Foster, London, 1899. (2) Fagge and Pye-Smith, Text Book of Medicine, 5th ed., London, 1901. (3) Food and the Principles of Dietetics, by Robert Hutchison, M.D., London, 1901. (4) Experimental Glycosuria, Pavy, *Lancet*, 1902, vol. 2, p. 392. (5) Pharmaceutice Rationalis, etc, by P. Willis, Oxford, 1674. (6) Comparative Anatomy of the Pancreas, Harris & Gow, *Journal of Physiology*, 1894. (7) Die Zucker Krankheit, by Prof. C. von Noorden, Berlin, 1895. (8) The Physiology of the Carbohydrates, F. Pavy, 1894. (9) The "Acetone Series," Pavy, *Lancet*, July 12, 19 and 26, and August 9, 1902. (10) Physiologische Chemie, Neumeister, 1893. (11) Physiology of Pancreas, by Schäfer, British Association, 1894. (12) A System of Medicine, by Clifford Allbutt. (13) Surgical Aspects of Glycosuria, by L. C. P. Phillips, *Lancet*, May 10 and 17, 1902. (14) Discussion on Diabetic and Non-Diabetic Glycosuria, Chelsea Clinical Society, *Lancet*, March 28, 1903. (15) Two Lectures on Diabetes Mellitus, *Clinical Journal*, April, 1903. (16) Certain Blood Changes in Idiopathic Epilepsy, by Robert Pugh, M.D., *Brain*, Winter, 1902. (17) Glycosuria and Diabetes, by W. Hale White, M.D., *Lancet*, March, 1903. (18) The Influence of Subcutaneous Injections of Large Quantities of Dextrose on the Metabolism in the Dog, James Scott, *Journal of Physiology*, March, 1902. (19) Pavy on Diabetes, *Lancet*, June, 1900. (20) Braithwaite's Retrospect of Medicine, vol. 119-121. (21) Encyclopedia Medica. Art: "Diabetes." (22) Osler Text Book of Medicine, 4th ed.

(Read before the South Australian Branch of the British Medical Association.)

Digitized by Google

TWO HUNDRED CASES OF APPENDICITIS.

By H. Critchley Hinder, M.B., Ch.M., Hon. Surgeon. Prince Alfred Hospital, Sydney.

I HAVE no doubt but that it has occurred to many of us how strange a thing it is that appendicitis, which cannot at all events be put down as having a specific germ as its cause, should be so universal. The most virtuous and most dissolute, the dwellers in hovels and the dwellers in palaces, appear to be equally liable to this dangerous and incomprehensible disease. Does it not seem probable that there is some influence at work over which we have absolutely no control at present, nor does it appear that we ever shall? However, you will pardon me if a perusal of my notes on these cases, and an examination of a very large number of appendices, in a pathological condition, should induce me to make a few suggestions which I hope will meet with your approval.

First let me remark upon a few peculiarities in the structure and position of the appendix. On examination a constriction is always to be found close to the cæcum. Sometimes one or even more constrictions may be found, reminders of those which are met with in the more fully developed appendices of some of the lower animals; or occasionally a constriction may be due to a kinking of the appendix, consequent upon the shortness of its mesentery, or secondary to some adjacent inflammatory condition. Between these constrictions are to be found more dilated portions, very often containing small ovoid concretions. The appendix varies in length. On one occasion I found it to be nine inches long, and as thick as my thumb. There was a fairly wide neck, and the patient suffered from repeated attacks of colicky diarrhœa, with great tenesmus. When found, it contained material which could easily be pressed out. The tip lay in close contact with the rectum, and this accounted for the tenesmus. In two other cases the appendix was about the size of one's forefinger, and very thick, owing to repeated attacks, so that its size may have been to some extent occasioned by hypertrophy following on frequent acute inflammatory attacks. The length of the appendix will be found to vary between an inch and a half and nine inches.

It is usually found lying along the brim of the pelvis, about midway between Poupart's ligament and the umbilicus. Many of this type overhang the brim of the pelvis. The next situation in order of frequency is the angle between the cæcum and the parietal wall. In a much smaller percentage we may expect to find the appendix either just above the anterior superior spine of the ilium or well down in the pelvis. These situations are the most common, but I have also found this ubiquitous remnant on certain exceptional occasions immediately below, or even attached to the right kidney, an inch below the gall-bladder, in close proximity with the umbilicus, adherent to the lower end of the rectum, to the posterior and superior wall of the bladder, and firmly attached to the centre of the sacrum. I have also found it on two occasions occupying the sac of an inguinal hernia, and in six cases it was hidden within a retro-cæcal pouch.

A great deal of ingenuity has been shown in the nomenclature of the different varieties of appendicitis. We hear of fulminating appendicitis, gangrenous appendicitis, perforating appendicitis, and other conditions which do not by any means indicate the precise gravity of the attack; for, after all, the whole matter resolves itself into the virulence of the organism and the resisting power of the individual, or to come a little nearer to the clinical conditions, the rapidity with which the local infection advances and destroys the tissues in the wall of the appendix and infects either the peritoneal fluid, or by means of the lymphatics advances further afield.

Then again, why is it that any patient gets appendicitis at all? Some say that the appendix is comparable to the tonsils, apparently because it contains some adenoid tissue, but it is in no other way comparable to the tonsils. Others appear to find some kinship between appendicitis and acute rheumatism, because it has been found to be tender, or I should perhaps be more correct if I were to say that tenderness has been found in the iliac fossa when acute rheumatism was affecting some joint. These authorities will tell you that they have seen an attack of appendicitis subside after the administration of salicylate of soda; but many other septic and infectious conditions will give way more or less to the exhibition of the salicylates. For my own part, I have seen but one case of appendicitis which showed joint affection. This man died from a septic lymphangitis, which spread towards his liver. His joint affection was evidently pyæmic.

Constipation and diarrhœa are said to be causes. That they may be exciting causes there is some reason to believe; but there are numbers of persistently constipated people who are never troubled with appendicitis, so that it is evident that there is some casual cause over which we have very little control, and this, I feel sure in my own mind, is almost always a congenital narrowing near the neck of the appendix.

Digitized by Google

Under ordinary circumstances the mucous secretion of the appendix escapes into the cæcum. In every appendix which I have examined during the acute stage I have been struck with the state of tension it is in, except in certain cases where the attack has eased off somewhat, and instead of a full, distended appendix there will be seen one which is only somewhat full, and over whose peritoneal surface one may trace large tortuous vessels having all the appearance of vessels which have been but recently very distended and have now become concertinaed, as it were, from the relaxation of their supporting tissues.

Then, again, the vast majority of appendices removed contain concretions. These concretions are made up mainly of dead epithelium and organisms, and are fair evidence of the stagnation of the normal contents of the tube. No doubt as these concretions increase in size they produce ulceration, for I have often seen macroscopically such an ulceration; and Dr. Cleland, who undertook for me the microscopical examination of a number of appendices when he was pathologist to Prince Alfred Hospital, particularly noted the great frequency of this localised necrosis. If a perforation occurs, or is about to occur, its situation is, so far as I have seen, always opposite the concretion; and in the appendices examined by Dr. Cleland the denudation of surface, though in some instances somewhat general, was always deepest and most marked opposite the concretion.

The milder cases of appendicitis which recover without operation at times—cases which are so mild that there is some difficulty in saying precisely what the illness is—owe their recovery to the fact that the contents of the appendix escape into the cæcum in much the same way as we meet with cases of biliary colic where the bile becomes pent up, and after depletion by a brisk purge the ducts become less swollen and the gall-bladder contents under increase of pressure escape.

I have already hinted that the degree or the virulence of the infection need not necessarily depend upon the perforation of the appendix, for I have seen a general peritonitis without perforation; nor does it necessarily follow that a patient with a general peritonitis has a more severe infection than one who has merely a foul appendix removed before more than a localised peritonitis has been able to manifest itself. I have seen a patient cheerful and looking well with a general peritonitis who recovered after a free flushing out, while another who had been operated upon after 14 hours' illness, and who looked pinched and ill and was vomiting, died after two days, notwithstanding the fact that his foul appendix was removed and the stump carefully isolated with tube and gauze packing; and die, too, with a lax abdomen, and merely a dirty greyish surface round about the stump.

Of this last type, I am glad to say, I have only seen two examples; and both became ill, and desperately ill, very quickly.

An abscess forms simply because the disease has advanced sufficiently slowly to allow of the formation of adhesions between the appendix and neighbouring parts. One may often find a concretion lying loose in these abscesses, so that it is quite likely that the ulceration associated with the presence of the concretion has been such as to bring about a certain amount of adhesions some time previous to the present attack. It is always advisable to search for and remove these concretions, as they are apt to prolong the final healing of the cavity.

Very small concretions may at times be found in an appendix when the abdomen has been opened for other reasons, and these are present without any associated history of appendiceal attacks. They are simply an evidence of, and a result of, the stagnation of the appendiceal contents, and yet in time, as Dr. Cleland's examinations showed, epithelial denudation and later ulceration will probably take place, followed by round celled infiltration and such fibrotic changes as usually indicate the presence of a chronic inflammatory process. I feel fully convinced that the great majority of cases of appendicitis are brought about by such a narrowing as I have mentioned, usually due to a congenital constriction at the neck, and perhaps occasionally brought about by a kinking from inflammatory changes close by. There are still cases—and I have seen but two which appear to come under this special category—where there has been a thrombosis of the mesenteric vessel, similar to that rarely seen in connection with the intestinal mesenteric vessels, and the gangrenous condition present at the time of operation has spread to the neighbouring cæcal wall. I can only say that these two cases appeared to be of this character; they may possibly have been due to an advanced condition of the ordinary gangrene often found in connection with severe types of infection.

It would appear to be more than probable that many cases of appendicitis which have recovered from acute attacks associated with the presence of a mass owe their recovery to the rupture of the abscess into the intestine. Hardly any other explanation will account for the sudden and mysterious recovery which takes place in some of these patients. Abscess cavities,

Digitized by Google

too, are sometimes opened which, after two or three days, discharge fæces, and give fair evidence of the fact that ulceration had taken place almost leading to rupture into the bowel at the time of operation. On operating for recurrent appendicitis, the appendix is sometimes found to be attached to the bladder or the bowel by a mass of peculiar-looking cheesy material, and the lumen of the appendix has been partly destroyed. This cheesy material appears to be made up of lymph in a state of fatty degeneration, or in places partly organised. At all events, it is frequently sterile. Even these somewhat obliterated appendices will occasion attacks of appendicitis, which only disappear with the removal of the affected part.

There are patients who give a history of several attacks, with recently a greatly increased severity. The appendix in these may be found perfectly free from adhesions to surrounding structures, with thickened fibrotic walls, giving one the impression that with each attack the contents were expelled, but that at the same time, from repeated inflammation, the walls had increased in thickness and the lumen had become more narrow, until at length blockage was almost complete.

It is useless to attempt to make use of statistics in order to show what proportion of cases would recover without operative treatment. Even those who operate and have their errors made manifest are aware of the difficulties which surround accurate diagnosis, so that it would hardly be wise to accept the statistics of a man who bases his arguments on the number of cases which he thinks suffered from appendicitis, and which recovered without operation. Renal colic, biliary colic, salpingitis, intestinal colic, typhlitis, are every now and again mistaken for appendicitis by the best men. Three of my cases suffered from biliary colic, due to gallstones, and appendicitis at the same time. Both conditions were dealt with through the same incision. On one occasion a small fibroid tumour, to which the appendix was attached by old adhesions, was removed with the appendix. Hydrosalpinx, pyosalpinx, and ovarian abscess have been found intimately associated with a distinctly pathological condition of the appendix. Knowing this, is it any wonder that our diagnosis needs at times to be made with caution?

Suppose we now attack the great question, What is the best advice to offer a patient who is suffering from appendicitis? Undoubtedly the best treatment is the treatment which gives the patient the best prospect of recovery. If, during the early acute stage, the patient must necessarily submit to be operated upon by one who is not fully conversant with the technique of any abdominal emergency, he had much better be left alone, for his chance of recovery will be greater. Either he will recover or he will get a localised collection of pus, which may be dealt with without much difficulty, or, at all events, will allow him to travel to those who may be the better able to deal with him. The patient may also get general peritonitis and die, yet for all that I maintain that it would certainly be unwise to induce men to think that the removal of an appendix is always an easy matter, and I am sure the experience of those who know most about the operation will bear me out.

In acute appendicitis, too, it is not simply the discovery and the removal of the appendix, but the appreciation of the extent of the peritoneal sepsis, and the knowledge exactly how to deal with the condition under observation, which taxes the ingenuity of the operator. On the other hand, if the patient is or can be placed in the hands of a man who is conversant with all the details connected with the treatment of abdominal septic conditions, I do most emphatically assert that the patient runs a much smaller risk if he submits to operation in the acute stage immediately the onset has been definitely recognised, for I myself confess that I know no means of recognising with certainty whether the patient is likely to recover without operation, or whether he is about to speedily suffer from a general peritonitis. It may be taken as a general rule that the more intense the pain and tenderness the more dangerous the attack. If the pain and tenderness is marked, and if vomiting is present, grave conditions are more likely to be established than if the onset is gradual and pain slight. Yet even these mild cases are deceptive, although they are the only ones in which one might consider that a waiting policy might be submitted to. I have seen such cases progress for two or three days, and then the pains become more severe, and an immediate operation becomes necessary, and discloses the fact that grave changes are rapidly taking place in the appendix. The quiescent period, immediately after a severe onset, is deceptive and must be recognised as, frequently, a symptom of grave concern. It usually means that the tension in the appendix has been relieved, nor is it possible to say in what manner the relief has been obtained, whether the fluid has escaped into the cæcum, or whether the appendix has ruptured. If the appendix has ruptured, the pain is relieved but for a short time, as a rule, and again becomes intense. Here, again, the

Digitized by Google

element of doubt crops up; cases of general peritonitis take place without any rupture of the appendix. An effusion of fluid takes place, it becomes infected and turbid, the peritoneum covering the intestines becomes inflamed, and by friction with adjacent surfaces would cause great pain were it not that peristalsis is checked; but if peristalsis is not checked, even as in the case of the pleural surfaces in pleurisy with effusion, the adjacent surfaces are kept apart; so are the peritoneal surfaces kept apart by the fluid present, and very little pain is felt, although a general peritonitis is present. Take this for an example of several of the points I have raised. A boy of 12 years left for school quite well. He came home at 11 o'clock with violent pains. He was put to bed and an aperient administered. I saw him, in consultation, at eight o'clock that same day. His temperature was 100, his pulse was 115, his abdomen was slightly distended and slightly tender. He said he felt much better, and while we gravely consulted he whistled and sang a popular song in the next room; nevertheless, we urged immediate operation. The appendix was much distended, and with flakes of lymph adherent to its surface. Thin purulent fluid was present in abundance. I opened in the left kidney pouch, and found the same purulent fluid present, and also in the right kidney pouch. Drains were inserted in each pouch, and in the first wound as well, and the whole abdomen was washed out. The boy made a good recovery. General peritonitis was present within 12 hours of the onset of his illness. It is true that the pulse was raised, yet there was an extraordinary feeling of well being.

The pulse rate is certainly an indication, as a rule, that things have happened, but the point is that this extremely dangerous condition of a localised or general peritonitis, indicated by the rising of the pulse, ought to be anticipated. I have seen a localised fairly diffuse peritonitis with a pulse under 100, so that the want of rise in the pulse rate does not necessarily mean that grave conditions, such as a general diffusion of sepsis, have not yet commenced; and, on the other hand, if the pulse rate has risen near 120, it almost always means that a general or localised diffuse peritonitis has already begun, that is to say, that the favourable opportunity has passed, and the patient by the delay has been forced to face an enormously increased risk. The objection raised by some to operation during the acute stage seems to be without any sound surgical foundation. Tissue resistance is said to be weakened. This is not the case, but rather is it increased in the effort to overcome the infection already present. The increased leucocytosis is sufficient evidence of this.

We are all agreed that the appendix when inflamed is a source of danger, and we hope that it will settle down; but I defy anyone to say with the smallest amount of certainty at the onset of any attack or during the progress of it whether the appendicitis is about to settle down or to end in a diffuse peritonitis. Until this can be done the whole question rests as to whether more lives can be saved by immediate operation or by studiously leaving them all alone until the patient recovers, or dies, or exhibits the evidence of a localised abscess, which, if it point favourably, is easily dealt with, but which is certainly at times, when situated among the intestines and away from the abdominal wall, a very serious matter indeed.

In fact, the actual removal of the appendix early in the acute stage is not attended by any greater risk than its removal during the interval. An appendix whose offensive stump is treated antiseptically and shut off from its surroundings by tube and gauze may still have been the receptacle of such a virulent infection that the patient will surely die, as happened in two of my cases; but otherwise its removal is a logical surgical procedure which is moreover justified by the results obtained; and I am sure that others will bear me out that removal consistently under such circumstances will be attended with a far smaller mortality than that which is associated with a waiting policy, simply because we cannot possibly tell the condition of affairs until the border line of safety has been passed.

I shall divide this series into two parts. The first 90 odd cases have been very carefully collected in detail by my house surgeon, Dr. Davis. All of these were operated upon at Prince Alfred Hospital. There were 11 deaths. Only one death followed operation during the interval. The patient had suffered from about 15 attacks, which were becoming more frequent. She had her appendix matted up with a cystic ovary and a dilated Fallopian tube and coils of small intestine. There was necessarily much denuded surface left. Intestinal obstruction set in gradually on the sixth day; she died on the thirteenth. I thought at first that the distension might have been due to pus, and an exploratory puncture into Douglas' pouch punctured the distended bowel, which leaked, and was as much the immediate cause of death as the obstruction.

One other patient died of pyæmia, with abscess in the lung and pleura. Another died of septic endocarditis. In another the gangrene of the appendix spread to the adjacent cæcum.

Digitized by Google

The others died of general peritonitis. All the acute cases which died had pulses over 120 on admission except two. One man had general peritonitis, with a pulse of 98. The other case was a feeble man who had an abscess, and soon showed evidence of abscesses elsewhere. He had been ill three weeks before admission. The second series of 118 cases was operated upon in private hospital, and a few were treated in private houses and in a district hospital. In this series there were six deaths. In one of these, a girl of 17, an abscess was opened and a sloughing gangrenous appendix and adjacent cæcum was found. The gangrene appeared to spread, and she died in a few days of general peritonitis.

In two other cases the patients had been taken ill suddenly, and suffered from severe vomiting, and were much distended. The appendix of the one was gangrenous, and there was much less naked eye disturbance in that of the other. In each case the abdomen went down, but the patients appeared to be ill, kept up a pulse over 110, and vomited occasionally. They both died with flat, undistended abdomens, and an examination through the operation wound, just before death, revealed a grey, sloughy surface, implicating the adjacent cæcum, and possessing a peculiar, heavy corpse-like odour. Two others died of general peritonitis, which was present at the time of operation, and the sixth of internal obstruction following upon operation for rupture and fæcal extravasation all over the abdomen. In this series of cases there were six suffering from general peritonitis, four of whom recovered and two died.

The reason why the mortality is greater in the public hospital is obviously because the patients are brought in at such a late stage. Several times I have seen them practically moribund, dying in less than six hours after admission.

Judging from my own experience it would appear that the recovery of a patient from general peritonitis depends on the rapidity with which he is submitted to operation.

It will be observed, then, that all of the patients who died except one suffered from an acute condition which demanded operation at once. A waiting policy would have still further diminished their chance of recovery, and this fact was plainly demonstrated when the abdomen was opened. On the other hand, there were several cases of localised diffuse peritonitis, and four out of six cases of general peritonitis who owed their lives to a policy of immediate interference.

All that can be done is to make an opening in each kidney pouch, another over the appendix, and, in women, another in Douglas' pouch. Through these, with the help of a judicious stirring up of the intestines, and by running the stream of saline solution mainly from the left kidney pouch across (as this pouch is the last to be infected), the whole abdominal cavity is washed as clear as possible of septic material.

The gravity of the prognosis by no means always depends upon even the co-existence of a general peritonitis, nor does it depend on the perforation of the appendix, for I have seen cases of general and localised diffuse septic peritonitis when there was no actual perforation in the swollen inflamed appendix. Perforation most probably depends either on the rapidity with which the tissues are affected by the septic process, or by the fact that the ulcer, which almost invariably accompanies the presence of a concretion of any size, has such a thin base that it takes but little pressure from the contents of the distended appendix to bring about a rupture through the wall.

The argument that foreign bodies occasion attacks of appendicitis is a fallacious one. The only foreign bodies I ever found in an appendix were a piece of coal, a raisin seed, and a stiff hair of a man's moustache, and these did not appear to me to be factors in the causation of the attack.

Although the youngest patient was three years of age and the eldest over 60, I see no reason why the congenital factor should not have been primarily the cause. The greater number of patients are young adults, but there are other congenital conditions which do not necessarily show themselves early in life, but owe the demonstration of their existence to the fact that some surrounding circumstance has developed their possibilities.

In conclusion, I should like to repeat that appendicitis is brought about in the vast majority of cases by the interruption to the outflow of its mucous secretion, and that this interruption is caused primarily by a congenital narrowing near the cæcal end of the appendix. This narrowing becomes a complete blockage either owing to causes arising within or without the appendix. The presence of a concretion which owes its existence to the want of a free evacuation of the appendiceal contents gives rise to inflammatory conditions which effectually close the already narrowed outlet. The same complete blockage may take place from extension of inflammatory changes arising within the cæcum: the appendix becomes distended, and the further progress of the case depends on the

Digitized by Google

rapidity of the infective process, which is probably influenced by the completeness of the blockage and the extent of the necrotic changes which have already taken place within the appendix, usually opposite the concretions.

(Read before the New South Wales Branch of the British Medical Association.)

THE PROTEAN METHODS OF HYDATIDS.

By A. S. Joske, M.B., Ch.M., Melbourne.

Mrs. A., aged 32, had been a patient of mine for some years prior to 1898, and she had been attended by me in confinement first four years previous to being delivered by me on October 2nd, 1898. She had at her previous confinement a normal delivery, and nothing was noted that would lead me to suspect she had any abdominal tumour. During 1896 and 1897 she came occasionally to me for various ailments, but only in the latter part of 1897 did she complain of abdominal pain and fulness, but I could not detect any tumour or swelling in her abdominal region. In the early part of 1898 I first thought I felt a swelling in the neighbourhood of her umbilicus, but as she became pregnant I did not place much reliance in my diagnosis. During the period of her pregnancy, her various pregnancy symptoms seemed accentuated, and she had a good deal of recursional difficulty in passing motions, and in the latter period some well-marked swellings could be made out in the neighbourhood of the pregnant uterus. I was called to see her on October 2nd, 1898, and found labour had started. On examining her I found a large fluctuant tumour in Douglas' space, which was being pushed down by the advancing head. I could not push the tumour away; therefore Dr. Willis administered chloroform. I delivered her, exercising all the care I could so as not to rupture the cyst. I debated tapping first and then delivery, but after talking the matter over, thought it possible to deliver without rupturing the cyst; but found that I had failed, and the tumour ruptured and the contents escaped into the abdominal cavity. Her child was a boy, and healthy. The abdomen, when the uterus was emptied, could be examined easily, the patient being under chloroform, and several tumours could be felt lying in the abdominal space. The patient did well for 14 days, when a large tumour in the neighbourhood of the umbilicus began to get soft and tender, and her temperature began to rise. The baby was weaned, and hot local applications applied to the abdomen and the uterus curetted to see if there was any uterine cause for the temperature, but the uterus was clean and discharge perfectly sweet. The abdomen became gradually more tender, and the temperature gradually raised between 102° and 103°. On October 25th the morning temperature 103·2° and the evening 102·8°. On October 28th temperature was 102·2° in the morning and 103° at night, and the abdominal pain and tenderness had increased, with vomiting. On October 27th it was decided to open her abdomen, as though her temperature had fallen to 100·6° the general abdominal symptoms were bad. Dr. Willis gave her chloroform, and her abdomen was opened. The central tumour, near the umbilicus, which was about as large as a good navel orange, was suppurating, and it was removed. It was lying in the mesentery of the stomach, and the mesentery being tied was easily detached. The abdominal cavity contained seven of these large hydatid growths, varying in size from an egg to an orange. All were attached to the various mesenteries and were easily removed. The abdomen was washed out and the abdominal walls brought together without any drainage tube being used. The temperature rose after the operation to 103·2°, but on the 28th it was only 98·6°, and the vomiting and pain had all disappeared. The wound was not dressed until November 3rd, when the temperature having risen a little the night before I thought it well to see if all was right. There was some slight sloughing about the neighbourhood of the original sloughing hydatid, but beyond this the abdomen was soft and flaccid. On the 10th this suppuration had increased largely, but was purely in the abdominal walls, and hot antiseptics were applied frequently. The temperature was normal on November 12th, but still a good deal of suppuration continued. On the 19th this had ceased and the patient sat up in bed. On the 21st she sat up out of bed, and on the 24th she walked well with an abdominal belt. From this time on she gradually got strong and attended to her household duties. She continued well during 1899, and in 1900 again came to me with small tumours forming in the abdomen. These gradually increased in size until October, 1900, when the pain and discomfort having greatly increased, Dr. Willis again gave her chloroform, and I opened her abdomen a second time. The hydatids were larger and more diffuse than at the previous time. One very large one was between the liver and the right kidney, and another very large one was pressing between her stomach and the pericardium. Then another was right between the uterus and rectum. The rest were, like at the previous operation, spread through the mesenteries, but were easily removed. The amount of hydatid

Digitized by Google

cysts removed was very large, a white bedroom basin being filled with the solid unruptured cysts, several ruptured being taken away by washing out. The accompanying photograph will give an idea of the size of the growths. She stood the operation well, and after the abdomen was washed out the walls were once more brought together. For the first few days her pulse was intermittent and irregular and she had a good deal of abdominal pain, needing both strychnine and morphia. On the 12th of October she developed a right pleuro-pneumony, needing poulticing, etc. But the abdominal cell healed so well that the sutures were removed on the 17th of October. She had pain on the right side and a little temperature for some days, but sat up in bed on the 1st November, and got out of bed on the 2nd November. The pleurisy still gave her pain, and her right side was blistered on the 6th November, and morphia had to be given her urgently. On the 9th November she walked well, the side had to be re-blistered once, but her temperature became normal, and her general condition also normal on the 16th November.

I have seen her at intervals since this second operation, and she has continued well, and last year she went to Europe and through America, and she shows no signs, up to the present date, of any hydatid tumours either on the abdomen or on any of the organs of the body.

Her baby is now a fine healthy child.

The second case is simpler, but still very interesting.

J.E., aged 9, was brought to the Alfred Hospital as an out-patient on September 20th, 1902. He had a swelling at the bottom of the left sequela, about 5 in. in length and 1½ in. in width. It was somewhat painful to the touch, and had been some months in its present position, and bore marks of a recent small incision and puncture. The history showed that two medical men had seen it outside the hospital and had punctured it, thinking it was a cyst of some sort, but that no fluid had been obtained. The child was admitted into the hospital, and on October 9th Dr. Pitt administered chloroform; I taking it for granted that as the previous puncture had shown nothing in the way of fluid that the tumour was probably fatty, and needed simply removal. In removing the skin and incising the growth a quantity of thick yellow pus at once exuded, and a large cavity was disclosed going right down to the pleural cavity. On passing my finger into the cavity I found a lot of broken-down hydatid cyst-wall and some small daughter cysts, and a lot of fragments of bone. On further examination the end of the scapula was found necrosed, and also two of the ribs in front of the necrosed scapula were also broken. The bits of dead bone were removed, the bones were scraped well with a curette, the cavity was washed out, a drainage tube being inserted. The boy made a quick and good recovery, showed no sign of any lung trouble, and was discharged from the hospital on October 29th, quite well.

He came back to the hospital again in August of this year with a small swelling about as big as an almond alongside the old scar. Dr. Pitt again gave him chloroform, and on opening this little swelling it was found to be a simple cystic growth full of pus. Dr. McKeddie examined the pus and could find no trace of hydatids at all. This second operation was done on August 14th, 1903, and the boy was discharged quite well 17 days later.

In reference to the first case, I have only once seen an abdomen so full of cysts. This was a case in the Alfred Hospital some years ago. The abdomen was opened, but the patient died on the table when the growths were being removed. I have never seen a case of broken rib from hydatid before, and the extraordinary part of the latter case is the small amount of pain the boy had.

To show the frequency in which hydatids come into hospital, I have made out the list of cases that have occurred in the Alfred Hospital in the last ten years, showing 159 cases in various portions of the body out of a total of 15,161 patients.

Year.	Cases of Hydatids.	Total Cases in Hospital.
1894	21	1131
1895	17	1337
1896	7	1496
1897	20	1452
1898	17	1752
1899	14	1611
1900	17	1514
1901	10	1443
1902	20	1582
1903	16	1843

(Read before the Victorian Branch of the British Medical Association.)

THE SURGICAL TREATMENT OF SENILE ENLARGEMENT OF THE PROSTATE.

By W. Anstey Giles, M.B. & C.M. (Edin.), Adelaide.

PATIENTS with senile enlargement of the prostate and the distressing sequelæ so frequently associated with this condition are constantly applying to us for treatment, and the measure of relief usually obtained is not so complete and permanent as the sufferer or the practitioner could desire.

As in the case with all chronic and intractable diseases, the methods adopted and recommended are endless; but no attempt at radical

Digitized by Google

cure has been so successful as that suggested and practised by Dr. P. J. Freyer. In April last he published his fifth series of cases, extending over about two years, on patients varying in age from 58 to 79 years. He has now recorded 31 operations, 27 of which were completely successful, "the patients being able to retain and pass their urine as well as ever they did." Four patients died, but three deaths were from causes not connected with the operation, so that only one fatality should be directly attributed to the surgeon's interference. A wonderful record, truly, when we come to consider that "a very large proportion of the patients were almost moribund before the operation," and "scarcely any of them were free from one or more grave complications, such as putrid cystitis, pyelitis, kidney disease, diabetes, heart disease, chronic bronchitis, etc." Had a large proportion of the patients not been moribund, such statistics would be gratifying in the extreme, but under the existing circumstances they must be described as little short of miraculous. If in the hands of surgeons generally—many have already reported most favourable results—experiences bearing comparison with those of Freyer can be obtained, the profession will have ample reason to enthusiastically welcome this innovation and universally accord encomiums to its originator.

A few months after White, of Philadelphia, published his paper, in 1894, on the advantages derived from double orchectomy in cases of senile enlargement of the prostate, a suitable case was admitted into my ward in the Adelaide Hospital, and I performed the operation. The result was disappointing, as after a few weeks symptoms of insanity developed, and the patient's mental balance was never recovered, while no improvement in the bladder condition was observed. Subsequently I made a second attempt, with an equally unhappy termination. Neither individual had exhibited any predisposition to mental disturbance at any time previous to the operation. My colleagues in the hospital at this period had an equally unfortunate experience. I made no further attempt to follow in Professor White's footsteps, but have since given vasectomy a trial, without being able to satisfy myself that any substantial benefit followed.

After this I performed McGill's operation, and removed the middle lobe and portion of the lateral lobes in order to establish a low level channel and thereby abolish the deep post-prostatic pouch in which residual urine lodges. My patient lived about 18 months after the operation, and though he undoubtedly received benefit, I cannot say I was enthusiastic about the result. Assuredly, great credit must be awarded to Belfield and McGill for pioneering an operation which Freyer has taken up and perfected. These surgeons satisfactorily demonstrated that the statement of Sir Henry Thompson, Guyon and other high authorities, which had so long been accepted, that a confirmed atony of the bladder consequent upon prostatic enlargement is incurable, even by the removal of the obstruction, is a fallacy founded upon a false hypothesis.

The man I exhibited at a meeting of this Society two months ago affords an excellent illustration of what Freyer's operation will accomplish, and never before have I seen anything like such a brilliant result follow any surgical interference undertaken for the relief of this disease. It is his intention to appear before us again six months hence and report progress. As this is the first case undertaken in the Adelaide Hospital in which Freyer's method has been carried out, a short epitome of the notes may be of interest.

G.M., *æt.* 66, was admitted into the Adelaide Hospital on April 5th last, suffering from troubles associated with senile enlargement of his prostate. For six years he had been suffering more or less inconvenience, and frequently had complete retention, lasting sometimes for weeks, but always regained control over the bladder. When admitted, he had been unable to pass urine without the aid of a catheter for about a week. As a general rule, had to rise five or six times during the night to void urine.

The prostate was found to be considerably enlarged when an examination per rectum was made. The urine was alkaline, and contained a little pus and albumen. The man's general health was fairly satisfactory; heart and lungs quite healthy.

On the 18th he was placed under ether anæsthesia, and the following operation performed:—

An uneventful suprapubic cystotomy enabled me to explore with my finger the internal urethral orifice, which was surrounded by a collar of hypertrophied prostatic tissue. With scissors I snipped through the mucous membrane of the bladder, close to the urethral orifice, making an L-shaped incision, running behind and along the left border, and gradually insinuated the tip of my right forefinger into the opening. My left forefinger was inserted into the rectum to steady the gland and push it upwards, thus greatly facilitating the manipulation necessary. A solid metal instrument was kept in the urethra, and I endeavoured to save the prostatic portion, but was not successful in doing so, as the floor of the prostatic urethra, with the ejaculatory

Digitized by Google

ducts, attached to the left lobe were demonstrated by Professor Watson on examining the specimen. The enlarged lobes were shelled out and removed quite rapidly, and with remarkable ease. In spite of hot douching, very profuse hæmorrhage persisted, so I thought it advisable to firmly plug, which I did with iodoform gauze, after Cabot's method. All bleeding was thus completely arrested.

The man stood the operation well, and his general condition when he was removed from the table was quite satisfactory.

Next day the gauze was removed and no further hæmorrhage occurred. A large drainage tube was inserted, and twice a day the bladder was irrigated with weak boric acid solution. On the 22nd the drainage tube was discarded, but a soft catheter was passed, and the bladder thoroughly washed out twice daily.

On May 5th he passed several ounces of urine per urethram.

On May 12th he passed 20 oz. naturally, but a considerable quantity was still discharged by the wound. Every day after this an improvement was observed until the 26th, when the wound was perfectly healed and all the urine was passed freely and easily by the urethra. He could retain his water from three to four hours at night and longer during the day. About this date he appeared before the Society, and on June 3rd was discharged cured.

In his published reports, Freyer maintains "that total extirpation of the prostate for enlargement of that organ" is accomplished by the operation he so strongly advocates. He also claims that the true capsule is removed at the same time. When this statement is analysed it is open to question whether it is correct. The prostate is composed of two lateral lobes nearly ovoid in form lying side by side, their inner surfaces being adherent to each other in the middle line, except where they are separated by the urethral canal. It is invested by a capsule of strong fibrous tissue from which trabeculæ pass into its interior, supporting the gland structure; and outside this there is a second covering, "the sheath," derived from the pelvic fascia. Between the capsule and "the sheath," which are connected by numerous fibrous bands, lie a number of veins: the prostatic plexus. Of course, no "sheath" exists over the gland on its bladder aspect.

The hypertrophy may chiefly affect the stroma when we have to deal with the "fibro-myomatous" prostate, which is not distinguished by any very great enlargement. On the other hand, we may have an overgrowth of the glandular elements, when a very considerable general enlargement usually occurs, and the term "adenomatous" prostate is applied to this variety. To this latter class of prostatic hypertrophy, Freyer's operation is admirably suited, as it is the adenoma that is enucleated, leaving the thinned and compressed prostate and its capsule behind.

When an attempt is made to remove the "fibro-myomatous" prostate entire with its capsule, by this method, the operation, instead of being extremely simple and rapidly performed, becomes difficult and tedious, often accompanied by profuse hæmorrhage and severe shock, with a result the reverse of satisfactory.

The capsule, so called, is really an integral part of the gland, and the presence in the capsule of normal prostatic gland tissue can be readily demonstrated. An old man, about 80 years of age, was recently admitted into my ward in the Adelaide Hospital with complete retention of urine, due to an enlarged prostate, and generally he was in such an exhausted, debilitated condition that any attempt at radical cure was out of the question. Beyond giving him relief with the catheter, there was little to be done for him, and in a few days he died. On the post-mortem table I performed Freyer's operation, and with great ease enucleated the prostatic adenomata, which I have brought down for you to inspect this evening, and subsequently removed the urinary bladder, in order to demonstrate important points which interest you.

1. That the whole prostate is not removed at this operation, for we can plainly discern that the capsule is formed of stretched and laminated prostatic tissue, and the microscopic sections, now exhibited, prepared from this specimen, show well-marked collections of gland cells.

2. You will observe that the prostatic urethra, and portions of the ejaculatory ducts have been removed with the adenomatous masses, and I must confess that after using every care on two occasions I have failed to remove the prostatic enlargement without taking also that portion of the urethra traversing it. Freyer, in many of his reported cases, states that he has preserved the prostatic urethra intact, but this result can only be obtained in certain cases. If the quickly growing adenomatous masses were situated towards the centre of the lateral lobes, it is quite conceivable that in their growth they would still have left a considerable mass of tissue between themselves and the urethral wall, so that in their removal the urethra would have been left intact, and when placed together after removal they would have enclosed a sulcus in which lay the urethra in the body.

3. I would direct your attention to the manner in which the parts fall together after

Digitized by Google

enucleation is completed, to the thorough elimination of all material likely to occasion any obstruction, and to the perfect patency of the natural channel.

Whether any serious contraction occurs in consequence of the removal of the prostatic urethra, time alone will prove, and my patient will present himself for examination periodically.

After keeping some of his cases under observation for over two years, Freyer states that no contraction sufficient to cause any inconvenience follows. The damage done to the ejaculatory ducts in men advanced in life, as patients suffering from this disease always are, is of comparatively trifling importance.

That Freyer proceeded along the lines laid down by McGill does not admit of argument, and he can hardly claim to have introduced a new operation; but he has revived and perfected a method which, in properly selected cases, yields brilliant results, and in the future we can approach these cases, feeling confident that in the vast majority of instances our treatment will be successful in alleviating a most distressing and painful malady.

To Professor Watson and Dr. Angas Johnson my best thanks are tendered for the care and trouble they have taken in preparing and hardening this beautiful specimen, and for the microscopic sections.

(Read before the South Australia Branch of the British Medical Association.)

NOTES ON THREE CASES OF SCIRRHUS OF THE BREAST.

By Robert Scott, M.D., Ch.M., Hon. Surgeon Ballarat Hospital.

At the outset I must apologise for directing your attention to a subject so much talked and written about, and worn almost threadbare by discussion, and after all discursive points are summed up our scientists can only fall back on the canny Scottish verdict of "not proven."

The three cases I would bring under your notice were all comparatively identical in running a rapidly fatal course, and all occurred contemporaneously.

Miss W., *æt.* 42, came to consult me on January 13th, 1902. She was physically a splendidly built woman in apparently perfect health, 5 ft. 8 in. in height, and weighed 11 st. 8 lb. Four months previously she noticed a painful growth in the right breast, which had gradually increased in size. There was no history of traumatism nor irritation, as otherwise her health was perfect; no hereditary disposition.

On examination there was a hard tumour about the size of a hen's egg in the right upper quadrant of the breast, freely movable; no involvement of any axillary glands. Owing to private reasons no operation could be entered on until March 7th, on which date I removed the breast, and cleared out any suspicious foci in the axilla, though no definite glandular enlargements could be found. Patient made a good recovery, the wound healing by first intention.

On September 3rd, 1902, she again consulted me, when I found there was rapid recurrence involving the scar and also the axillary glands. At the second operation, assisted by Drs. Morrison and Salmon, I removed a very large amount of skin and cleared out the whole of the axilla, leaving the vessels fully exposed. In 10 days the wound had healed and looked healthy. At this time the patient began to complain of severe pains across the back, which she attributed to "lumbago." There was no enlargement of the liver nor involvement of the mesenteric glands. On October 5th, vomiting came on which could not be controlled. Patient began now to waste rapidly; the liver showed secondary deposits. Patient sank rapidly, and died on December 16th—just 15 months after the growth was first noticed by her.

The second case was that of Miss D., *æt.* 44, who came under my care on April 9th, 1902. In January, 1902, I assisted Dr. Pinnock to remove the right breast for cancer. The axillary glands were also removed. The patient first noticed the growth eight months previously, but did not take much notice of it, as she had always been very healthy and led an active life. There was no history of heredity. When I saw the patient in April she was much wasted, complaining of severe attacks of pain, specially referred to the back and limbs. There was some recurrence along the scar and some involvement of the axillary glands. The liver was not enlarged, but some mesenteric glands and the glands of the groin on both sides were markedly enlarged. There was also at times persistent vomiting; but the latter I attributed to the morphia, which was given hypodermically in ¼ gr. doses, and which, as it had become more or less a habit since the operation, she refused to discontinue. Owing to her weak state and the secondary deposits, any further operation was not advised, and she died in September, about 18 months after the primary growth was first observed by her.

The third case was that of a married woman, Mrs. B., *æt.* 40, who first consulted me on December 2nd, 1901. Seven months before she noticed a lump in her right breast. Had six children, the youngest 11 months, which

Digitized by Google

she was still nursing. There was a history of a secondary rash which was acquired some years previously. On examination there was a tumour in the upper and outer quadrant of the right breast, about the size of a goose egg; the skin was adherent; nipple was not involved, and no glands could be felt in the axilla. She was advised to wean the baby, and come again when the breasts were inactive.

On December 17th, 1901, I removed the breast, Dr. Champion assisting. As no glands could be felt in the axilla nor under the pectoral muscle, they were not removed. In a fortnight the wound was perfectly healed.

On April 16th, 1902, I removed two small glands which had become enlarged. At this time she complained of sciatic pain in the right leg.

On June 16th, as she lived in the country and could not come in, her husband called and reported that she had had a miscarriage one month previously and that she complained of pains in the front of both thighs, which almost prevented her from walking.

On September 14th she was driven into Ballarat, and Dr. Salmon saw her in consultation. She was then much wasted. There was recurrence along the scar, and the glands in the axilla were affected. She had lost the use of her lower limbs, the patellar reflexes were increased, sensation was slight, and there was complete anæsthesia of the soles of the feet. No recurrence in any of the abdominal organs could be felt Owing to the history of acquired syphilis she was put on specific treatment. I did not again see her, as she went home. She died on November 28th, 1902, just 18 months after the growth was first noticed by her.

These three cases show the great uncertainty of operative treatment. They were all cases where one would be inclined to give as favourable a prognosis as one ever can give in malignant cases, and yet they all ran a remarkably rapid course of recurrence and death under two years from the first appearance of the growth.

Authorities are now urging the advisability of clearing out the axilla in all cases, but this is substituting a very severe operation for a comparatively simple one; and can one guarantee, in rapid cases, a better result from the severer operation? In two of the cases I have mentioned, the axilla was fairly well, though not wholly, cleared out; yet in these cases there was not only recurrence but *metastasis*, in one case in six months and in the other in four months after the original operation.

It is recognised that the younger the patient the quicker is the advance made by the growth.

In patients above 50, where the cancer has been growing for 12 months or more, and where the growth is situated nearer the nipple than the upper or axillary portions of the breast, I should be inclined to remove the breast and all affected glands, without completely clearing out the axilla; but on the other hand, when one has to deal with a patient under 50 with a growth in the upper part of the breast, even when the skin is not involved, and even when the axillary glands are not gravely affected, and when the history of the onset is under 12 months, then I should amputate the breast and clear out the whole of the axilla.

Let us hope that the Commission on Cancer may crown its efforts with success. At present science is defied by it. What is its source and what its prophylactic remains still undiscovered; but I feel assured that ere long cancer will be conquered by scientific investigation, and medicine will add one more triumph to its already long list of diseases—dreaded in the past—disarmed by long and patient investigation.

(Read before the Ballarat District Branch of the British Medical Association.)

SHORT NOTES ON THE RADICAL CURE OF UMBILICAL HERNIA.

By C. E. Todd, M.D., Adelaide, S.A.

I HAVE often been surprised at the very small space allotted in surgical text-books to descriptions of operations for the radical cure of umbilical hernia. Having regard to the amount of inconvenience this condition causes to elderly stout women, who are the chief sufferers, and to the fact that it is at all times a highly dangerous complaint, one would have thought that more surgical ability would have been directed to the subject. Moreover, most authors whose books I have seen advise that cases of this sort should not, as a rule, be subjected to operation, partly because the condition of the sufferer is not, as a rule, favourable for surgical interference, and partly because operation on the whole is not particularly successful. For many years, I must confess, I avoided surgical treatment for these cases as much as possible. I only operated when the hernia was the subject of strangulation or incarceration, and I looked upon a certain amount of recurrence after any operation as almost inevitable. Lately, however, with improved methods my results have been very much more encouraging, and I believe that if these herniæ could be operated on in the early stages almost every case could be cured.

Digitized by Google

The principle which should guide us in operations is very simple: we must remove the whole of the umbilical bulging after having returned intestine, should there be any in the sac, and ligaturing and dividing the omentum at its constriction where it enters the abdomen. In this way we should endeavour to make the wound appear after our cutting, just as the wound of any other abdominal section appears. If the peritoneum and muscles be sewn up in layers, we are hardly any more likely to get a hernia than we are after any other wound involving the thickness of the abdominal wall. There is, of course, always to be taken into consideration the fact that in large old umbilical herniæ the abdominal capacity has become, as a rule, very much reduced. Anyone who has noticed the constant contraction of the abdominal muscle, rendered necessary in order to support a large and heavy hernia containing much omentum, will very readily understand that this reduced abdominal capacity should be the rule, and that when the hernial contents are reduced the increased intra-abdominal pressure will be very likely in time to cause a bulging of the cicatrix. But even if this should occur it has none of the complicated character of the original hernia, and it can be readily kept from increasing by a properly adjusted belt.

Speaking for purposes of surgical operation, cases of umbilical hernia divide themselves roughly into two classes, and there is a very great difference in the difficulty in dealing with them. The first class includes all those herniæ, usually comparatively small in size, of recent occurrence, which either contain omentum only or in which the protruded bowel can be reduced into the abdomen. The second class consists of those cases which at all times contain a certain amount of bowel together with omentum.

It is not always, of course, quite possible to be certain that the bowel can possibly be reduced, but we can often be quite sure, and as it makes a great difference in the speed and ease of the operation, this should be ascertained as often as possible. Taking a case in which there is most probably nothing in the sac but omentum, the operation is done as follows:—

An incision, longitudinal or transverse, is made five inches long at least an inch away from the hernial bulging, so as to outside the area of adhesions, with its centre just opposite the most prominent part of the swelling. The peritoneum is opened, and the hand introduced to examine the parts running into the hernia; a constricted neck of omentum will generally be felt. The incision can then be enlarged if necessary, and the hand on the outside can make the hernial aperture appear at the wound. The omental adhesions round the umbilical orifice must be separated, the constricted portion of the omentum gently pulled upon, and then ligatured at its narrowest part, divided, and dropped back into the abdomen. An elliptical piece of the front of the abdominal wall, taking away all the umbilical bulging, and all its omental contents must then be cut out, and there is left a wound which resembles that of an ordinary abdominal section. This must be sewn up in layers in the ordinary way. I always put in silk stitches half an inch apart down to, but not through, the peritoneum, because should there be any vomiting after the operation they give one a feeling of security. The question arises whether the elliptical piece of the abdominal wall should have its long axis transversely or from above downwards. This will depend upon the laxity of the patient's abdomen. If the intra-abdominal pressure is great I think the elliptical incision (of course the original incision will then be transverse, had better be transverse, as there is less tension on the sewn-up wound. But if there is considerable laxity of the abdominal walls I think there is a distinct advantage in making the incision from above downwards, and removing as much of the superfluous wall as seems desirable or necessary. The principal points about this operation are the fact that the sac is never opened at all and that the incision is begun at such a distance from the hernia as will render it likely that the peritoneum may not be found adherent either to the inside of the abdominal wall or to the omentum. This procedure should not occupy more than half an hour, and it is simple in the extreme.

In the second class of umbilical herniæ, viz., those in which gut still remains in the sac in spite of rest and efforts at reduction, operation is more troublesome, chiefly because the sac will often have to be opened, and the hernia itself is often larger in size, and the gut adherent to omentum in the rupture.

The details as to incision and opening the peritoneum are the same as on the former operation. The hand inside the abdomen must determine the contents of the hernia; if they are bowel as well as omentum, the sac must be opened by another incision over the rupture. Before, however, this can be done, efforts should be gently made to pull any intestine therein through the hole in the abdominal wall. This can very often be done by pressure from without and gentle traction from within. If one's efforts in this direction are successful, the operation is completed as before. If, however, the gut cannot be reduced, it is necessary to open the sac; the intestine should be separated from the omentum as

Digitized by Google

gently as possible, and none of the latter should be returned into the abdomen, but it should be ligatured and cut off at its constricted portion at the neck of the sac. Often one will have to remove a very large mass of omentum, and this might be thought to be dangerous, but I am certain that it is not nearly so likely to cause trouble as the former plan of dropping large bruised and bleeding omental masses back into the abdomen, there to set up traumatic peritonitis. In the first case that I operated upon in this way the excised omentum completely filled an ordinary bedroom chamber, but the woman made an excellent recovery and has been perfectly well ever since

What I wish to emphasise in these notes is first of all the fact that it is best never to open the hernial sac from the outside if it can be avoided; second, that the abdominal incision should be made well away from the bulging, whether above it or to one or other side matters very little; third, the first incision should be a good long one, so that one will get plenty of room to examine the structures entering the hernia. If we could only get umbilical herniæ in the early stages, and operate on them at once, I have no doubt that many fat and elderly women would be spared a complaint which does so much to make their declining years wretched.

(Read before the South Australian Branch of the British Medical Association.)

MIRROR OF HOSPITAL PRACTICE IN AUSTRALASIA.

PRINCE ALFRED HOSPITAL, SYDNEY.

A Case of Fistula between the Portal Vein and Hepatic Duct, associated with Gallstones.

(Under the care of Mr. H. V. C. Hinder, M.B., Ch.M., Hon. Surgeon.)

Reported by E. W. Moncrieff, M.B., Ch.M., Resident Pathologist.

F.W.S., male, was operated on for gallstones, with a history of attacks of biliary colic and jaundice persisting and deepening. At the operation a large stone was found in the common bile duct. The wall was incised longitudinally over it, and no hæmorrhage took place until the stone actually escaped from the duct; its escape was immediately followed by a rush of blood as if coming from a large vein, but it was difficult to appreciate the exact origin of the bleeding. The hæmorrhage was controlled by four forceps, which grasped the edges of the incision, and finally by means of a large tube stuffed with gauze. Within a few hours the movement of the patient displaced the plug, and he died of hæmorrhage into his peritoneal cavity.

Post-mortem.—The common duct was greatly dilated, being about the size of the thumb, with its mucous membrane roughened, and its walls thickened.

The hepatic artery was normal.

The portal vein was in its usual position, and quite intact, so this evidently had not been cut, and was not the cause of the hæmorrhage. The walls of the duct and immediately surrounding tissues were carefully examined, and showed no evidence of any vessels from which bleeding could have originated.

The gall-bladder was small, shrunken, and its walls thickened, and contained a small amount of mucoid blood-stained fluid.

There was no evidence of any cystic duct. The common duct opened directly into the gall-bladder, and then ran on directly into the hepatic ducts. These ducts were full of dark clotted blood, which kept continually oozing out during the examination. Just at the transverse fissure, where the portal vein was entering the liver, and beginning to divide into its branches, was a small discoloured patch under the intima of the vessel about 1 cm. in diameter with a small opening with clear cut edges, like the mouth of a vein in the centre of this patch. On introducing a probe, it was seen that the intima of the vein was dissected up, and the discolouration was due to blood lying between the intimal wall and the underlying tissue. From this the probe passed on into one of the large hepatic ducts just at its commencement from the common duct. This was evidently the cause of the hæmorrhage, and the blood had passed directly from the vein into the ducts, and immediately escaped when the stone, which acted as a plug, was removed.

On section of the liver all the small bile ducts were seen to be full of blood-clots, which could be pressed out, appearing on the cut surface. The microscopical examination of sections of the liver showed an increase of small round cells in the ramifications of Glisson's capsule. The large medium sized bile ducts and the smallest contained blood cells, somewhat decolourised, but no more so than those in the portal veins, which were full, while the arteries were empty.

Remarks.—The cause of this extraordinary communication was not obvious, as it did not appear that the stone was in a position to

Digitized by Google

cause pressure and absorption of tissue. It is possible that the stone may have been lying over the position of the opening and caused necrosis, and then have been pushed on, allowing some blood to escape, and then the extra blood pressure may also have aided; but the site of the stone for some time, anyway, seems to have been lower down in the common duct, as here the mucous membrane was roughened, while above, in the position of the opening, it was normal in appearance.

The appearance of the blood in the ducts was only compatible with that of a recent invasion, any time from a few hours to three or four days, as the clots were soft and dark in colour.

The condition may have accounted in part for the jaundice, which was more marked than is usually found in such cases, the hæmoglobin of the blood being absorbed directly from the bile ducts, a kind of hæmatogenous jaundice; but as there was complete obstruction to the outflow of bile, this alone would have been sufficient, although the blood condition may have been added.

Such an unique occurrence did not offer any opportunities for diagnosis, but it would have been interesting to know how the case would have terminated if not operated on.

CLINICAL AND PATHOLOGICAL NOTES.

A CASE OF HYSTERECTOMY FOR PUERPERAL INFECTION.

In the "Journal of Obstetrics and Gynæcology of the British Empire" for July, 1903, appears an abstract of a paper by Doleres (*la Gynacologie*, April, 1903), in which the opinion is forcibly expressed, from the study of a large number of fatal cases, "that hysterectomy is of very limited value in the treatment of acute puerperal infection." In ordinary broad ligament infection and lymphangitis this opinion may be correct; but that cases do occur, and they are not very uncommon, where nothing short of complete removal of the uterus and appendages will save life, the following example may be quoted:—

A.M., aged 18, was confined four months ago. There was nothing abnormal in the delivery, and for ten days the temperature remained fairly low, but not quite down to normal. About the tenth day she complained of pain in the left iliac region, and as the temperature began to rise I examined and found a tender mass in the right broad ligament. As in a few days there was no improvement and the temperature kept up, the mass becoming larger and more painful, abdominal section was performed with the intention of removing whatever was found to be the cause of the trouble. On endeavouring to separate the mass, which was a broad ligament abscess, from the uterus I found the uterine wall so friable that it broke down under the manipulation, and many points of pus were issuing from the right side of the uterus. The mass was removed in the usual manner, supra-cervical amputation of the uterus was performed, and as the other ovary and tube seemed inflamed and inclined to join in the suppurative tendency it was deemed wise to remove them also. The patient had rather a long convalescence owing to an abscess in the abdominal wall, but she is now perfectly well.

The point of interest in this case lies in the fact that infection of the uterine wall evidently came from the broad ligament, and that nothing short of removal of the whole of the infected area would have saved the patient's life. In the ordinary pelvic abscess of course hysterectomy is uncalled for; but that instances of suppurative metritis occur where hysterectomy is demanded and nothing less will suffice, the foregoing case is an example.

Brisbane. WILLIAM S. BYRNE, M.D., M.R.C.P. (Lond.)

REVIEWS AND NOTICES OF BOOKS.

TROPICAL DISEASES: A MANUAL OF THE DISEASES OF WARM CLIMATES. By Sir Patrick Manson, M.D., LL.D., F.R.C.P. (Lond.), F.R.S. New and revised edition. London, Paris, New York and Melbourne: Cassell & Co., Ltd. 1903. Sydney: Angus and Robertson. Post free, 12s 8d.

Since the publication of the first edition of this manual a large amount of work has been accomplished in the Department of Tropical Diseases. The establishment of schools of tropical medicine, not only by the British Government, but by other countries as well, has led to the investigation of many important points of etiology which had previously been somewhat in doubt. Perhaps the most important advance which has been made in this direction has been the proof of the mosquito being an essential factor in the pathology of tropical diseases. The discovery of the precise way in which *Filaria nocturna* is inoculated by the mosquito, the discovery of trypanosomiasis in man, and the discovery of an unsuspected route by which the *Ankylostomum duodenale* may gain access to the human intestine are also important advances in our knowledge of this class of disease. All of these new facts, as well as a concise account of some new diseases, have been incorporated in this handy volume. The descriptions of the different diseases are concise yet well up to date in their clinical and pathological aspects, and some of the articles are well illustrated. We regret, however, to note the entire absence of any reference to the important work which has been done in our own Department of Public Health by Drs. Ashburton Thompson and Tidswell on leprosy and the bubonic plague. In fact, there is practically no reference whatever to any work done in Australia in this department of medicine, although these reports have obtained European recognition as being of the highest scientific value.

Digitized by Google

We can, however, strongly recommend this volume as being a most valuable compendium of the present state of knowledge of the tropical diseases. G.E.R.

MANUAL OF PRACTICAL MEDICAL ELECTRICITY. By Dawson Turner, B.A., M.D., F.R.C.P. (Edin.), M.R.C.P. (Lond.). Lecturer on Experimental Physics, Surgeon's Hall, Edinburgh. Third edition. London: Baillière, Tindall & Cox. 1902. Pp. 396. 7s. 6d.

This new edition has been rewritten in parts, several chapters have been added, and the book altogether has been brought up to date.

Part I. deals with electro-physics, and here the author has condensed this large subject within a comparatively small space with some degree of success, though a more detailed description in several places might have been added with advantage. Special care has been devoted to the chapter dealing with the apparatus for use with the mains, and the charging of accumulators in private houses. The illustrations are numerous and well executed, and on this account the subject can be more easily understood.

Part II. discusses electro-physiology, and includes chapters on the physiological effects of electricity, galvanic electricity, electrolysis and faradism.

Part III. is devoted to electro-diagnosis. Special attention is directed to the electrical resistance of the body, and a table is given in which the specific resistance, in ohms, of some of the tissues is enumerated. A special point is made of the fact that in certain diseased conditions a record of the variations in the degree of resistance to electricity in the urine, and blood may be utilised as a valuable aid to diagnosis and prognosis. There is no doubting the fact that these experiments have been most carefully carried out, but owing to their tedious nature, and the many intricacies, they are not likely to be much availed of from a practical point of view. Scientifically, however, they are of interest.

Electro-surgery occupies Part IV. The methods of application and the requisites are carefully mentioned, and a detailed description is given of the treatment electrically of trichiasis, nævi, aneurisms, etc. A very full and excellent account is given of the Apostoli plan of treatment of fibroid tumours.

Part V. is devoted to electro-therapeutics. Here numerous diseases are mentioned which are said to benefit greatly by the application of electricity, but one must not be led to believe that this method of treatment is a panacea for all ills, for in very many cases where it has been applied the results obtained are uncertain or even unsatisfactory.

Part VI. gives a brief *résumé* of the Röntgen-rays. Referring first to the nature of the radiation and how it is obtained, recent improvements in Röntgen apparatus are touched on, and the various kinds of interrupters mentioned. The author describes an interrupter bearing his own name, and which is certainly most ingenious. Fluorescence and photography, together with methods of localisation, are then dealt with. That very important subject, renal calculi, is summed up very briefly.

The volume concludes with two chapters on X-ray therapeutics and the Finsen light, and the numerous diseases are mentioned which yield either to one or the other form of radiation. A comparison of Röntgen and Finsen rays is clearly made, and thus this manual concludes. Unfortunately, scarcely any reference is made to the promising achievements of high-frequency currents, and without doubt a whole chapter might have been advantageously devoted to this subject. On the whole, however, Dr. Turner is to be congratulated on this his third edition of the "Manual of Practical Medical Electricity." L.H.H.

BACTERIOLOGICAL TECHNIQUE. By J. W. H. Eyre, Bacteriologist to Guy's Hospital. Philadelphia and London: W. B. Saunders & Co. Melbourne: James Little. Price, 12s 6d.

As a laboratory guide, or as a supplement to some of the well-known text-books on bacteriology, this book can be recommended to those desirous of seriously taking to the practical investigation of bacteriological technique. The arrangement of the matter, however, is somewhat unfortunate, and is not such as to readily facilitate the student in rapid reference. The description given of the standardisation of nutrient media is particularly good, and will be found to be of very material assistance to those anxious to make use of media which have been carefully prepared. The use of such standardised media is absolutely essential to all good and careful research work. Many of the apparent discrepancies in the work of separate authorities upon one and the same organism are undoubtedly due to the failure to properly standardise the media used.

To those beginning the study of bacteriology in its practical aspect this book cannot be strongly recommended, as it contains a mass of details which would prove somewhat bewildering to a beginner. The general get up of the book is good, and the illustrations are both numerous and well planned. S.J.

THE POCKET THERAPIST: A DICTIONARY OF DISEASE AND ITS TREATMENT. By Thomas Stretch Dowse, M.D. (Abd.), F.R.C.P. (Ed.). Bristol: John Wright and Co. London: Simpkin, Marshall & Co. 1903. Price, 6s. 6d.; or interleaved, 8s. 6d. net.

The preface indicates that this volume may be looked upon as a pocket dictionary of disease and its treatment, and that it is up to date. The book seems to be drawn up on the lines of a work composed of such extracts as a careful practitioner might make for his own guidance, including here and there interpolations of his own ideas. In a *brochure* of such small size and wide scope one hardly expects diagrams; those inserted are hardly well chosen. Sometimes matters are included which would be more in place in a large text-book. For the busy practitioner, who wants to refresh his knowledge with the most modern information, when unable to refer to ampler treatises, the volume will probably prove useful. The paper, printing, form and binding are pre-eminently adapted to fulfil the purpose aimed at. T.S.D.

OPERATIVE SURGERY. By Herbert W. Allingham, F.R.C.S., Surgeon to the Household of his Majesty the King; Senior Assistant-Surgeon and Lecturer on Operative Surgery at St. George's Hospital, etc. Pages, xiv and 367; with 215 illustrations; demy 8vo. Price, 7s 6d net. London: Baillière, Tindall & Cox. 1903. Sydney: L. Bruck.

In the preface the author states: "No attempt has been made to give lengthy descriptions or to mention all the operations in surgery, but simply to give a brief account with special attention to the important points of those procedures which the author believes to be the best in the various regions." The work is divided into seven parts, with an introductory chapter. Part I deals with the operations on the upper limb; Part II, with those on the lower limb; Part III, the head and neck; Part IV, the thorax; Part V, the abdomen; Part VI, the pelvis; Part VII, operations upon the vertebral column. It is not intended to take the place of a text-book on surgery, but will prove of great value to those who wish to refresh their memories as to the points of any particular operation they may be called upon to perform. The illustrations are by Mr. Lockhart Mummery, F.R.C.S., and clearly portray the objects they are intended to illustrate. The author and publishers are to be congratulated on the excellence of the work. W.H.C.

Digitized by Google

THE AUSTRALASIAN
MEDICAL GAZETTE.

SYDNEY, 21ST SEPTEMBER, 1903.

THE DIAGNOSIS OF DIPHTHERIA.

In a recent issue we published a letter from Dr. MACDONALD GILL, of Sydney, the physician in charge of the diphtheria branch of the Hospital for Sick Children in Sydney, in which he pointed out the evil effects of delay in the diagnosis of diphtheria, and the consequent delay in the administration of the diphtheria anti-toxin, until it is, perhaps, too late to counteract the serious constitutional effect of the disease. In our last issue we published a short abstract from the report of the house committee of the same hospital, in which attention was drawn to the high death rate which prevailed in the diphtheria cottages amongst the tracheotomy cases, as many as 13 out of the last 14 tracheotomies having proved fatal. The explanation given of this high death rate was, that in all cases the patients had been ill for three days and over before being sent to the hospital, and before the anti-toxin treatment had been commenced.

These statements require serious consideration at the hands of the general practitioners, and point to a laxity in care in the diagnosis of suspicious cases of sore throat. Not only is it a matter of the utmost importance to the patients themselves that the true nature of a sore throat should be speedily diagnosed and treated accordingly, but it is a matter of serious importance for the public generally. The study of the epidemiology of diphtheria has shown most clearly that serious epidemics of this disease in schools have arisen from a neglect to recognise a sore throat as diphtheria. Quite recently, Dr. W. G. ARMSTRONG, the City Health Officer of Sydney, in his annual report for last year, has drawn attention to an outbreak of diphtheria in one of the suburbs of Sydney, which was clearly traced to an infection of the milk by the organism of this disease, at a dairy where a child had been suffering from a sore throat not recognised as diphtheria.

In former days it was impossible to be certain of the diagnosis of diphtheria in all cases from simple clinical examination of the throat. The appearance of a well-defined membrane on the tonsils and pharynx, with enlargement of the glands at the angle of the jaw, a moderate degree of temperature, with considerable constitutional depression, may be taken as diagnostic signs of diphtheria, and probably all practitioners would recognise such a case as one of this disease. But it is in the less definite cases of slight sore throat, with hardly any constitutional disturbance, with scarcely any signs of membrane, or perhaps none at all, that the diagnosis without a bacteriological examination of a throat swabbing is a matter of impossibility. It is further a matter of great difficulty to decide whether a case of croup is one of laryngeal diphtheria or simply one of laryngeal spasm, and it is in this class of case that a prompt diagnosis of the true nature of the disease may be a matter of life and death. Careful clinical investigation and bacteriological examination of a swabbing from the throat, even if there be no obvious membrane, will enable the practitioner to decide the diagnosis. It is true a bacteriological examination cannot be made under 24 hours, since the Klebs-Loeffler bacillus can only be definitely diagnosed by its cultural characteristics, in addition to its morphological features; and if in a case of laryngeal diphtheria active treatment be postponed until a definite bacteriological diagnosis be made, the critical period may be passed, and the constitutional infection become so pronounced that the anti-toxin fails to cure the patient. Success in the use of diphtheritic anti-toxin depends upon its being used in the earliest possible period of the disease; the

Digitized by Google

longer its use is delayed, the less hope there is of a successful issue to the case.

The moral of this is the great importance of the general practitioner (who is always the first to see the case) taking a swabbing of the throat in all cases where there is the slightest possibility of diphtheria, and sending it to a competent bacteriologist or the Hospital for Sick Children for bacteriological examination, and meanwhile administering a dose of anti-toxin. Playing with diagnosis by the use of such terms as "Diphtheritic," "Diphtheroid" sore throat only serves to confuse the true issue, to lose precious time, and perhaps to condemn the practitioner in the eyes of his patients for his ignorance or neglect. A case is either one of diphtheria, and needs the anti-toxin treatment at once, or it is not a case of this disease; and with the facilities at his hand for accurate diagnosis of the case the practitioner of the twentieth century should never fail in his duty to his patients.

WOMEN DOCTORS.

Some recent events in Sydney have brought before the general public in the columns of the daily newspapers the position of the female medical practitioners in this State, and the disabilities under which they are suffering at present The British Medical Association has come in for its usual share of condemnation by the writers in the lay press, who show their ignorance of its constitution, its aims and objects.

Some short time ago, when the franchise was granted to women, a women's branch of the Australian Natives' Association was formed, the real object of which was to organise the female voters on the same lines as the Australian Natives' Association, and to throw in with the political advantages of membership cheap medical attendance and the other medical benefits usually dispensed by the Friendly Societies. Further, it was intended that only women doctors should be medical officers of this new association. Needless to say, an association founded on these lines, with no regard to the medical profession, and one on all fours with the Australian Natives' Association, was declared by the Council of the New South Wales Branch of the British Medical Association to be a society "inimical to the interests of the profession" in terms of their Articles of Association. This step prevented the Women's Australian Natives' Association from securing the services of the women doctors in Sydney, all of whom are either members of the British Medical Association or are in sympathy with it; and, as a protest against the action of the British Medical Association, the President and some of the Committee of the Women's Australian Natives' Association have resigned. They state that it is a hardship on the poorer classes of women that they cannot be attended by women doctors if they wish it.

We need hardly point out that in view of the existence of a number of female lodges in Sydney, as well as the Sydney and Suburban Provident Medical Association and the Sydney Medical Mission, there is ample provision already made for medical attendance on the poorer classes by all the women doctors in Sydney, so that no injustice whatever has been done by the action of the British Medical Association, either to the classes of women deserving of medical attendance at reduced rates, or to the female members of the profession in Sydney. But to make out that the action of the British Medical Association is another illustration of the hardships inflicted upon the women doctors by their male colleagues is to grossly misrepresent the true facts of the case. That the medical women in Sydney have not yet succeeded in securing appointments at the hospitals is only an index of the conservative state of public feeling, and the want of confidence, not in the ability, but in the suitability of the young women to discharge the arduous duties which often fall to the lot of the resident house surgeon at the large public general

Digitized by Google

hospitals. But the same objection does not apply in the case of the special hospitals for women and children, and we see no reason why appointments at these hospitals should not be given to women doctors. There have been conspicuous examples of their success in the discharge of these duties not only in the hospitals of this State but also in Queensland and in South Australia.

Women who enter the profession in this State must recognise that in view of the present state of public feeling their sphere of practice is more limited than it is in the case of the male practitioners, and the openings for appointments and practice correspondingly more limited; but these are no grounds for any special concession on the part of the British Medical Association in countenancing the establishment of a new friendly society for the sake of affording the women doctors opportunities of securing practice, while such societies deliberately contravene the fundamental principles which the medical profession at the present day consider to be essential. In upholding the rights of the profession against the encroachments of these societies the British Medical Association is seeking to maintain the best interests of all its members, both female and male, and in no sense to impose restrictions upon the rights and privileges of the women doctors.

THE MONTH.

The British Medical Association and the A.N.A.

At the last meeting of the Council of the New South Wales Branch of the British Medical Association it was unanimously agreed that the Council had no grounds for suggesting that the matter of the relations towards the B.M.A. and the A.N.A. should be again brought before the Branch. We feel sure that with this resolution all right-thinking members of the Branch will agree. The matter has been thoroughly thrashed out in previous meetings, and no reasons have been adduced for any departure from the policy already pursued—namely, to regard the A.N.A. as a society inimical to the interests of the medical profession, and to refuse to put ourselves under the thumb of this political organisation. We have not quite lost our independence.

The Asylums Inquiry.

As an outcome of the charges made by Mr. A. Kelly, M.L.A., in regard to the working of the New South Wales Government asylums, an inquiry was commenced at the Rookwood Asylum on September 8th by Mr. Barnett, S.M. It is understood that some serious charges have been made, especially against some of the inmate attendants. The inquiry was held *in camera*. Mr. E. Hansen, Director of Charities, was present on behalf of the institution, while Mr. A. Kelly was present on behalf of those who had lodged complaints or made statements to him. We hope that this inquiry will be a full and searching one. We have on previous occasions directed attention to the unsatisfactory state of these institutions, and as a result of the inquiry the lot of the chronic sick and destitute poor will be ameliorated.

A Proposed Crematorium for Sydney.

A deputation, comprising Dr. Foreman, Dr. Jarvie Hood, and Mr. J. Russell French, representing Sir Normand MacLaurin, Sir Julian Salomons, Sir Arthur Renwick, Dr. Creed, Dr. Mackellar, Mr. C. B. Stephen, Mr. T. A. Dibbs, and citizens of Sydney who were in favour of a crematorium being established by the Government, have waited upon the Premier (Sir John See) to urge that this should be done. Their request was that facilities might be provided for those who expressed a wish before death for their bodies to be disposed of by cremation. They asked that the Government should provide funds for the erection of a crematorium and its accessories. Sir John See said that he sympathised with the object of the deputation, and fully recognised the importance of the question, but he did not see why the Government should be called upon to meet the cost. A crematorium should properly form part of a burial ground. He would communicate with the trustees of Rookwood, and see if any arrangements could be come to between them and the Government. The question of expense was one of detail, and he recognised that a large section of the community should be afforded facilities for the disposal of their dead in this manner if they so desired.

Morphia Supplies to Inmates of Asylums.

The Director of the Government Asylums for the Infirm of New South Wales has forwarded to the Principal Under-Secretary a letter complaining that inmates of the Government

Digitized by Google

asylums have no difficulty in obtaining hypodermic syringes and private supplies of morphia. He concludes that the legal restrictions governing the sale of morphia are violated by those authorised to sell this drug, or the safeguards established in connection with its sale are not sufficiently stringent in the interests of the public health and safety. The letter was forwarded to the Pharmacy Board of New South Wales, and after discussion the board resolved to reply that all that could be done was being done to see that all poisons were properly sold, but that the board's inspector would be asked to make specific inquiry and take action, and that journals taken by every pharmacist would be asked to draw special attention to the matter.

The Notification of Pulmonary Tuberculosis.

In view of the efforts which are being made in the present day to combat tuberculosis and to secure notification of cases of pulmonary tuberculosis as one of the methods of so doing, it is interesting to learn that notification of pulmonary tuberculosis is by no means anything new. In his Milroy Lectures, delivered recently, Dr. Bulstrode states that in Spain during the reign of Philip V a law was passed imposing upon medical men the duty of notifying deaths due to phthisis; and at Valencia, in 1737, the municipal authorities required, under heavy penalties, the notification of cases of this disease. The wholesale destruction of clothing, etc., by burning which followed upon this decree led after a time to a protest by one Santiago Garcia; and Dr. Hauser, of Madrid, tells us that at the commencement of the 19th century the practice of disinfection, etc., passed into desuetude. The belief in the infectivity of the disease dates back much further. Morton, in 1689, expressed the view that phthisis was a communicable malady. In 1754 the infectivity of tuberculosis was made the subject of a decree by the College of Physicians of Florence. In Naples, in 1782, a patient suffering from pulmonary tuberculosis was isolated, and the locality, furniture, etc., disinfected with vinegar and sea water. The penalty for disobeying this injunction was three years' imprisonment with the addition of a fine, and if the offence were repeated the offending physician was banished. Morgagni stated in the 17th century that in Italy the bedding of phthisical patients was burnt, and that he (Morgagni) was afraid to make a necropsy on a body dead of phthisis. As Dr. Bulstrode remarks: "Here we have the discoveries of Villemin in 1865 and Koch in 1882 preceded for over a century by beliefs found eventually to have a basis in fact."

The Prevention of Consumption in Queensland.

Last month a deputation waited upon the Minister for Railways from the Queensland Association for the Prevention of Consumption for the purpose of placing before him the following matters: — (1) The prevention of indiscriminate expectoration in public buildings by the provision of spittoons, etc.; (2) enactment of regulations forbidding expectoration in railway carriages; (3) making use of some country hospitals for the accommodation of consumptives; (4) extending the time of residence of the consumptives at Dalby to three months. Mr. Leahy, in reply, said the hospitals had power now to take in consumptives. Dalby sanatorium was really only a training school where patients might learn how to treat themselves. He would consider the proposal with regard to public buildings, and he would ask the Commissioner for Railways to enforce the regulation to prevent expectoration.

A Compulsory Vaccination Bill for New South Wales.

The N.S.W. Premier (Sir John See) recently laid upon the table of the House memorandum from the President of the Board of Health in regard to smallpox and vaccination. This document states that New South Wales was the only State in the Commonwealth where there is no compulsory Vaccination Act. It might be inferred from that that the people were opposed to compulsory vaccination, but the only available evidence went to show that they held no strong opinion on the subject. They appeared not to oppose it, but merely to neglect it. Whenever there was a smallpox scare the number who applied for vaccination for themselves or their children rose remarkably. During the epidemic in Sydney in 1879-80 the vaccinations voluntarily done amounted to nearly 60,000, although before and afterwards the number of people vaccinated in the years when there was no scare was so small in proportion to the total population as to be insignificant. There seemed to be no reason, therefore, for expecting that any great opposition would be offered to the passage of an Act rendering vaccination and revaccination compulsory; and as this State was not merely exposed to disaster itself from the want of such a law, but was consequently a perpetual menace to every other State, the Board of Health would once more urge that the introduction of a Vaccination Bill and the establishment of a calf lymph station should be taken into practical consideration without delay.

Digitized by Google

The Royal Commission into Birth-Rate.

By the terms of the commission issued to the gentlemen appointed to inquire into the cause of the declining birth-rate in New South Wales, they are required to make a diligent and full inquiry into the causes which have contributed to the decline in the birth-rate of New South Wales, and the effects of the restriction of child-bearing upon the well-being of the community. They are also required to furnish their report within three months from the date of the issue of the commission. The detailed evidence taken by the Commission will not be published by the press, but the Commission will be asked to furnish to the press a summary of each day's proceedings. In the same way, the final report of the Commission will be presented to Parliament, detached from the detailed evidence given by the witnesses.

The Protection of Children.

The protection of children is a subject which is engaging a good deal of public attention just now, not only in New South Wales, but also in the other States. Recently a deputation from the Queensland Society for Prevention of Cruelty waited on the Premier (Mr. Philp) to ask him to take steps towards amending the laws relating to State children. They were desirous of having introduced the provisions of the Affiliation Act of South Australia and other amendments bearing on the subject, for the establishment of a children's court at the police courts. They also asked that the age of consent should be raised to 18 years; that lying-in homes and also foster mothers should be registered. Mr. Philp gave a sympathetic reply, and while not committing himself to introduce legislation on the subject this session, said he hoped that some, at any rate, of the requests of the deputation would be embodied in a bill which was being prepared by Mr. Groom.

The Norton Manning Memorial.

A movement to perpetuate the memory of the late Dr. F. Norton Manning has been inaugurated, the objects aimed at being the formation of a fund to provide an annual prize in psychological medicine at the Sydney University, to be called "The Norton Manning Medal," and a bronze medallion of Dr. Manning, to be erected in a prominent position at Gladesville Hospital, with which institution his name and work in New South Wales will always be associated. We hope that all medical men will subscribe to such a memorial. Subscriptions should be sent in at once to the honorary treasurers, 5 O'Connell-street, Sydney.

BRITISH MEDICAL ASSOCIATION NEWS.

PROCEEDINGS OF AUSTRALASIAN BRANCHES.

New South Wales.

THE regular monthly meeting of the Branch was held at the Royal Society's Room on Friday evening, August 28th, 1903, Dr. Brady (president) in the chair. There were 65 members present. Visitors: Dr Effie Stillwell, Dr. Mary Baldwin and Dr. Roberts, of Cowra.

The minutes of the previous meeting were read and confirmed.

The PRESIDENT announced the election of the following new members:—Drs. W. E. Harris (Armidale), A. H. Macintosh (Sydney), Percy L. Broadbent (Berry), J. Sexton (Tamworth). Nominated for election:—Drs. A. W. Esler (Stanmore), A. P. Ross (Condobolin), G. Wigan (Armidale), H. L. Shorter (Petersham), F. B. Williams (Bingara), C. C. Walsh (Corowa), Eleanor E. Bourne (Women's Hospital, Surry Hills), C. W. Bruce (Candelo).

Dr. KIRKLAND read some notes on a case of laryngeal papilloma in a child of 3½ years of age, also a pathological exhibit of carcinoma of larynx.

Mr. HANKINS said he had been very much interested in Dr. Kirkland's paper. There was a difficulty in obtaining a view of the vocal cords in children of the age mentioned by Dr. Kirkland. The speaker showed a speculum he had devised, by means of which it was possible to obtain a good view of the interior of the larynx under a general anæsthetic. He had performed tracheotomy on a child with papilloma, but the tube became displaced during the night and the patient died. He did not think Mackenzie's forceps would remove a large mass below the cord. The speaker was interested in hearing an explanation as to why the growth often recurred after laryngotomy, namely, the altered blood supply. Theoretically, a median incision ought to interfere with that as little as possible; but perhaps the granulations from the cut edges of the cartilage started the re-formation.

Mr. CLUBBE could call to mind two cases of papilloma of the larynx in children. In the first case, which occurred some 17 or 18 years ago, it was found impossible to remove the growth by the endo-laryngeal method. Thyrotomy was done and had to be repeated every two or three months for a considerable time because of the tendency of the growth to recur, even after the most complete removal. In the second case there was no recurrence of the growth after its removal by thyrotomy, but there was some stenosis of the larynx which necessitated the wearing of a tracheotomy tube for some months. This difficulty was ultimately overcome by means of intubation.

Dr. BRADY recollected the case mentioned by Mr. Clubbe. Each time the growth had been thoroughly removed, yet it kept recurring. He had removed a growth from a child of four years of age, and the growth proved to be angioma. He had used a curette for removing a fairly large growth; it was more easily used than the forceps. He had not employed the method adopted by Dr. Kirkland.

Dr. KIRKLAND, in reply, said when the growth was below the cord one could do a tracheotomy and operate from the tracheal opening.

Dr. HINDER read a paper on "Two Hundred Cases of Appendicitis." (See page 401.)

Digitized by Google

Dr. CHARLES MACLAURIN said they always had interesting papers by Dr. Hinder. He did not quite agree with the author's theory as to the exciting cause of appendicitis. There had been an enormous increase in these cases of late years. He had recently perused a paper in which the writer drew attention to the much greater digestibility of foods in use at the present day. As so much fibre nowadays was removed from these, and constipation was much more common than was the case in the past, might not the increase in the number of cases of appendicitis be traced to this cause?

DR. STEER BOWKER said he had listened with pleasure to Dr. Hinder's paper, though he could not agree with all his deductions. The constrictions he mentioned, having on so many occasions found in the lumen, of the appendix, not far from its cæcal end, were, he thought, more likely to be pathological than physiological, as he suggested. They were the result of previous attacks of appendicitis, with ulceration of the mucous membrane, from which the patient had so far recovered that the symptoms had subsided, and the loss of substance had been repaired by means of connective tissue, and contractions had taken place such as Dr. Hinder described; in fact, it was in that manner "mucous inclusions" were formed. Then, as to the causes of appendicitis, Dr. Hinder spoke as though all the causes started in a catarrhal appendicitis. The speaker did not think there was such a thing as catarrhal appendicitis *per se*, but only as a part of a general colitis, the mild attacks being *generally* appendicular colic, caused by the free appendix trying to rid itself of some foreign matter, which, if the appendix was free, it was well able to do by its peristaltic and retro-peristaltic action; but if the appendix became injured, either from within, from pressure necrosis, or from without, from traumatisms, such as the repeated small traumatisms of the psoas, iliacus, etc., or from inflammation of some neighbouring organ, and fixed so that its free movements were curtailed, then it could no longer rid itself of its contents, which became inspissated and being in a rigid tube, pressure-anæmia of the mucous membrane took place, and it succumbed to the attack of the swarming bacteria, so that fixation and stagnation were the first causes. Then with regard to temperature, pulse rate, etc., in any case that depended upon the nature of the infection, whether due to streptococcus or the bacillus coli communis, the latter invasion being marked by less temperature, etc., and in the latter condition the temperature might never be high, and still the damage great. The pain might leave the appendix region—a symptom of the gravest import—the appendix being no longer inflamed but *dead*, having sloughed. He should have liked Dr. Hinder to have explained more fully his method of operating, as he thought the larger wounds made by some surgeons to be absolutely unjustifiable.

Dr. WORRALL said he thought the meeting was indebted to Dr. Hinder for having presented this important subject in a manner so terse and clear. The constriction to which Dr. Hinder had referred, at the junction of the appendix and the cæcum, had its analogue in other ducts, notably in the Fallopian tube, and a swelling of the mucosa at that situation might lead to equally undesirable results. He thought, however, that the feeble nervous vascular and lymphatic supply of the appendix and its proneness to rotation were chiefly responsible for appendicitis. It was remarkable how appendicitis "ran in families." He knew one family where the father had died of the disease and three sons had suffered from it. He would like Dr. Hinder to explain the incision for appendicitis through which he was also enabled to remove gallstones with as much safety as if he had made another incision over the gall-bladder. With regard to flushing in general purulent peritonitis, he would like to point out that this could be done with more advantage with the patient in the low pelvic position, that is, with pelvis dropped five inches below the horizontal. The new Sydney Hospital table allowed this to be done. Saline solution introduced into the upper part of the abdomen would thus be carried downwards, and find its way out by the incisions in the lower abdomen and vaginal vault. Leucocytosis had been referred to; he had learnt the value of this in diagnosis from Dr. Stacy. The still unsettled question was "when to operate?" He (Dr. Worrall) was inclined to endorse Dr. Hinder's view that if the surroundings were quite favourable it was safer to operate when the diagnosis of appendicitis was made. He would urge that every case of acute abdominal illness should be seen every three or four hours, until a definite opinion had been formed that it was or was not a case for operation. Another point was that a diagnosis of appendicitis should not be made until a complete and thorough examination had excluded other pelvic conditions. In the female a vaginal examination should never be omitted. It was a serious thing for the patient if the surgeon made an incision for appendicitis and then found that he had to deal with a suppurating ovarian cyst or bilateral pyosalpinx. It was undoubtedly the case that many appendical abscesses which had been drained for several weeks were permanently cured, although no attempt had been made to remove the appendix. Still all were agreed it was better to remove it if that could be done without grave risk. In all his abdominal sections lately he had made a point of noting the position and condition of the appendix. Sometimes its position was such that, in the presence of appendicitis, its removal would be attended with great danger and difficulty: he referred to what Professor Watson termed the eleven o'clock position, behind the cæcum upwards and backwards, occasionally also devoid of a meso-appendix, and sealed to the cæcum. He (Dr. Worrall) thought, in these circumstances, the operator would do well not to attempt its removal, especially as the worst that could happen with an appendix thus situated would be an abscess external to the cæcum, where it could be safely attacked.

Dr. MAITLAND said he believed the operation for removal of the appendix to be quite safe in the interval, but thought it was far from being a safe one when done during an acute attack. When the operation should be done was a debatable point. He thought that if it were possible to get and diagnose a case of appendicitis in the first 12 hours of the attack, then it would be safer to operate than to leave the case, because the local condition was not unfavourable for operation. This was his custom; but he was quite opposed to the doing of the operation during the full blast of an acute attack if it could be avoided—that was, if there were no special indications for doing it. The reason he did not operate if he could avoid it in the middle of an acute attack was that the local condition was unfavourable for operation, and the risk was greater doing it than in waiting for special indications, or till from 14 to 20 days after the attack was over. He regarded a very rapid, irregular pulse, constant vomiting, a rigor, marked rigidity of the abdominal wall, and signs of pus as indication of operation during the attack. Dr. Hinder mentioned various positions of the appendix. He had met with it attached to the gall-bladder acutely inflamed; he took that case to be cholecystitis from gallstones, as there was acute pain, a temperature and jaundice. The appendix was removed and gall-bladder drained, throwing Koche's incision over the gall-bladder.

Dr. THRING said he agreed with the general conclusions laid down by Dr. Hinder, but entirely disagreed

Digitized by Google

with one or two points. As to the time of operation, he should prefer to have the operation done during an interval of quiet. Then, again, as to the constriction of the neck of the appendix referred to, he had not found it so generally present, and certainly did not think it the cause of the appendicitis. It was quite possible to have a sub-normal temperature and a slow pulse, and still have a perforation. The pulse rate and temperature could not always be taken as a certain guide in these cases. With regard to the impossible cases, he certainly had not met with them. The most important point was when to operate.

Dr. FIASCHI did not agree with Dr. Hinder's deductions respecting the effect and cause of appendicitis. He wished to speak on one point. He disagreed with the idea implied in the paper, that only certain surgeons should operate for appendicitis. He held that all medical men throughout the country should, at a moment's notice, be prepared to operate on such cases—just as the practitioner would be accustomed to apply the forceps or to deal with a woman suffering from hæmorrhage. It would be a great mistake for the idea to go abroad that only surgeons of large hospitals should operate in such cases. The general practitioner should be encouraged to undertake such operations, as he might do so with a very fair amount of safety. The operation was to make an incision and pack with gauze. He did not think any special skill was required.

Dr. SANDES said comparative anatomy gave some support to Dr. Hinder's theory as to congenital causes.

Dr. HINDER, in reply, said it was not possible for him in such a short paper to deal with some of the questions raised by those who had been kind enough to speak on the subject of appendicitis. It had been said that the appendix was sometimes so situated behind the cæcum that its removal was impossible. So far he had never set out to remove an appendix without completing the operation. It was certainly at times an operation of extraordinary difficulty, but with steady persistence, if one only knew how, it must come away. In those cases in which the appendix and the gall-bladder were dealt with at the same time, the two pathological conditions were somewhat close to one another, and hence the difficulty in their diagnosis. A vertical incision allowed one to deal with both without great trouble. The incision he usually employed aimed at splitting the muscles, and only a small hole the size of a two-shilling piece was thus made, but if the case demanded it an incision two or three inches long was made. He did most emphatically assert that the removal of an appendix when the surroundings were inflamed is the reverse of harmful. The inflammatory condition meant that the tissue resistance is increased, it was already waging war against the spread of infection from the septic source, and the removal of such a source at such a time was logical and productive of the best results. The constriction is not always actually at the cæcal end, but always within an inch and a quarter of it, so far as he had observed. At all events the dilatation would always be found beyond the constriction. In some of the lower animals there are a number of these constrictions, but he had never observed more than three in man. He spoke only of pathological specimens; probably many normal appendices have no appreciable constriction. . . . He was indebted to the courtesy of the Editor for permission to reply to the statement (made in his unavoidable absence from the room) to the effect that it would not be wise to make of the appendix a close preserve. He did not, by any means, wish to convey that impression. It would certainly be unwise if a close preserve might possibly conceal a tiger to tell a man whose experience was limited to shooting small game that he would meet no tiger. The only difference was, that in dealing with the abdominal preserve it was the patient who suffered; if it were the less conscientious operator, his eagerness to interfere might lose the keenness of its edge. It was only the jealous-minded folk who think that the surgeon wishes to make a close preserve of his subject. Operative surgery was a dangerous weapon to be used by those who choose to patiently acquire a knowledge of its details, and not to be entrusted to the hands of untrained men who feel suddenly called upon to attempt a piece of work which many a more experienced man would think twice about. In a case of emergency a man must do that which gives his patient the best chance of life and health. That was the only way to settle the question whether he should operate himself or get some one else. Nothing gives a surgeon greater pleasure than to hear of the advance of his science; nothing gives him greater pain than to hear in what disrepute it was held owing to the crude attempts of those who were either too indolent to learn, or had the misfortune to be so placed that they were unable to acquire a knowledge of the scientific details of surgery.

Council Meeting.

THE Council met at the Association Rooms on Friday evening, September 4th, 1903. Present: Drs. Brady, Rennie, Pockley, Crago, Hinder, Hankins, Worrall, Foreman and Dick.

The minutes of the previous meeting were read and confirmed.

The following members were elected:—Drs. Elser, A. P. Ross, G. Wigan, H. L. Shorter, F. B. Williams, C. C. Walsh, Eleanor E. Bourne and C. W. Bruce.

Representatives on the Home Council.—The HON. SECRETARY reported that a circular had been sent out asking for nominations, but that there had not been any nominations except those proposed by the Council—namely, Dr. G. E. Twynam and Professor C. J. Martin, F.R.S. Resolved—"That Dr. G. E. Twynam and Professor Martin be nominated for election at the next general meeting of the Branch."

Australian Natives' Association.—Letter was read from the Secretary of the A.N.A. asking for a reconsideration of the position of matters between the Branch and the A.N.A. Resolved—"That the Council having reconsidered the matter, see no reason to bring the subject before the Branch again."

Balmain Dispensary.—The HON. SECRETARY reported that he had written to the medical officers of the Balmain Friendly Societies' Dispensary calling attention to the fact that the A.N.A. was still connected with the dispensary. Resolved—"That the Balmain Friendly Societies' Dispensary be declared prejudicial to the medical profession in terms of the Article of Association No. 36, and that the present medical officers be asked what time would be required, having regard to their agreements, to enable them to retire from the institution."

Letter was read from a member with reference to lodge practice in Armidale. Resolved—"That the Hon. Secretary inform the writer of the views of the Council on the subject."

Letter was read from Dr. Drummond, of Adelaide, *re* an annuity fund.

Letter was read from a member *re* presidential robe.

The HON. TREASURER reported that he had paid off all the claims against the A. M. GAZETTE fund. Credit balances: General account, £312 14s 10d; GAZETTE account, £57 6s 6d. Accounts passed for payment: GAZETTE account, £75; stamps, £5; refreshments, £5; printing, £2 0s 6d.

Digitized by Google

The meeting of the Branch at a country centre was discussed, and allowed to stand over for the present.

The executors of the late Dr. Manning presented a portrait of Dr. H. B. Jones to the library. To be acknowledged with thanks.

A CORRECTION.—In our last issue, at page 365, in the report of the meeting of the Council of the N.S.W. Branch, the following statement occurs:—"The hon. secretary reported that Dr. Louis Henry, of Melbourne, had called upon him with reference to the amalgamation of the Victorian Branch and the Medical Society of Victoria." This should have read as follows:—"Dr. Louis Henry, of Melbourne, had called upon him and discussed the present position of the Victorian Branch."

Victoria.

The ordinary monthly meeting of the Victorian Branch of the British Medical Association was held on August 26th. Present: The President (Dr. Greswell), Drs. Lawrie, Beckett, Vance, Cuscaden, Bryant, Black, Weigall and Joske.

The PRESIDENT called upon Dr. Cuscaden to read his paper on "Some of the Common Causes of Backache."

Dr. BRYANT agreed with Dr. Cuscaden's views in everything excepting the necessity of operating on all cases of floating kidney. He considered that most of these cases were greatly benefited by a good fitting belt with pads behind and in front, and mentioned several cases in his own practice where absolute cures had resulted without operation. He also instanced a case that had been operated upon which had been very little benefited by operation. He quite acknowledged there were cases which had to be operated upon for urgent symptoms.

Dr. BECKETT said that the paper dealt only with female backache, but he would like to mention what a lot of backaches came under the general practitioner's notice, and how difficult it was sometimes to eliminate the malingerer in lodge practice from the actual sufferer. He must confess that backache was a very common complaint, and the number of patent medicines advertising cures for it was quite sufficient to show its prevalence. He found, in the backache caused by painful fissure of the anus and piles, that the high-frequency current cured it very quickly; in such cases he did not think it necessary to operate.

Dr. VANCE did not think that Dr. Bryant ought to blame the operation of fixation of the kidney, because in the case he mentioned the operator may not have properly fastened the kidney, and he certainly thought that operation was the proper treatment for floating kidney. Blisters, he found, had a good effect upon malingerers. Diuretics gave great relief in suitable cases; but in women the most common cause of backache was getting up too soon after childbirth.

Dr. WEIGALL presumed that women were more liable to backache than men from the shape of the spinal column, and the lumbar muscles have more to do to carry them about. He had suffered greatly from backache himself, and found that in his own case, and in a good many others, it was due to a rheumatic origin. He found strict dieting, abstention from all malt liquors and excess of meat was absolutely necessary, and medicinally the salicylate of soda and aperients did most good. In women, a breaking pain referred almost to one lumbar vertebra was symptomatic of pelvic disorders. The treatment for this was rest and attention to the organ affected. As regards the kidney condition, he did not understand how you could keep kidneys in position without fixing them down. Belts could hardly ever be made to fit properly, and caused trouble in other ways. Lately he had operated upon a gangrenous kidney, which had been movable, and the ureter got twisted, and from the examination of this specimen he could not see how ever a kidney could get fixed in its place again.

Dr. JOSKE thought Dr. Beckett was rather severe upon lodge patients with regard to malingering; and he thought the most common cause of backache was over-beering, over-teaing and over-eating. His treatment was diet, packs, flannels, and the uric acid treatment in its various forms; all did good. He also believed in making patients change their stockings and boots twice a day. With regard to movable kidneys, he found belts unsatisfactory, and unless the kidney was tied down and kept fixed nothing else was much good.

Dr. GRESSWELL wished to emphasise the entirely local muscular origin of some forms of backache, and he found horses and animals, as well as human beings, often suffered from this. He had contracted a bad attack of lumbago from getting wet whilst sculling in his early days at Oxford. There were, no doubt, malingerers, but also many most serious sufferers from backache.

Dr. CUSCADEN, in reply, said that a good fitting belt is at times useful, but he found it most difficult to get a belt to fit, and to keep the kidneys in position. He thought backache was a very favourite disease for malingering lodge patients, but often bowled them out by marking with blue pencil the seat of pain, and he always found it varied the position on every subsequent examination. In his paper he only alluded to the backache of women, and he found endometritis was the most common cause of this disease in their case.

Dr. JOSKE read a paper on "The Protean Methods of Hydatids." (See p. 406.)

Dr. WEIGALL congratulated Dr. Joske on his very successful cases, and would like to inquire if there was any indication of the ruptured cyst, and whether he thought that the contents of this cyst had infected the whole peritoneal cavity? With regard to the second case, would the bones be eroded and destroyed by pressure? If this were a pleural hydatid it was a very rare condition, and it very nearly became an illustration of how Nature sometimes cures.

Dr. CUSCADEN was also much interested in the tumour that ruptured in Douglas' pouch. He described a case that Dr. Meyer operated upon at the Women's Hospital which was adherent almost everywhere to the peritoneum and mesentery, and was found to be a hydatid.

Dr. BRYANT asked if the second tumour was growing externally from the pleura?

Dr. GRESSWELL thought that most of the members had seen many interesting cases of hydatids, and that the number of cases quoted by Dr. Joske as occurring at the Alfred Hospital seemed very remarkable for a dog-dirt disease which might so easily be eradicated if properly tackled, and he found that Australia was second only to Iceland in the frequency of this disease. He thought those cases where the cyst ruptured from the liver into the lungs, and was so evacuated by natural means, were most interesting, and mentioned a case that occurred at St. Bartholomew's in which the diaphragm had been pushed up as far as the first rib by a large hydatid.

Dr. LAWRIE related an incident that happened to him at St. Bartholomew's when going round Mr. Butlin's wards shortly after he had arrived in London. Mr. Butlin was asking the students what a certain case might be, and Dr. Lawrie had suggested a hydatid; the lecturer turned to another Australian, whom he knew, and said: "I see you have another friend here now."

Dr. BECKETT spoke about the prevalence of the disease in Victoria, and drew attention to the fact that in the moist climates of Gippsland and the Western District

Digitized by Google

hydatids were much more prevalent than in the dry northern regions, although the water was very bad in those places.

Drs. VANCE, GRESSWELL, WEIGALL and BECKETT all spoke about the etiology of the disease and the necessity for more care in filtering water, etc.; but it was decided to leave this part of the discussion to a future time, when the matter might be gone into more thoroughly.

Dr. JOSKE, in replying, stated that he had reported these cases, as he had the idea they were very unusual. He had hunted up the literature on the subject, and was unable to find a single case of pregnancy complicated by an hydatid reported. In reply to several members, he stated that the ruptured cyst, accompanied by numerous daughter cysts, were floating about in the abdominal cavity, and were removed as carefully as possible; but, of course, it was impossible to be sure that all had been removed. In the second case he thought it was most extraordinary that this hydatid had forced its way out through bony structures, instead of extending into the softer lung tissues. With regard to the frequency of hydatid disease, he understood that the Mount Gambier district was noted as being easily first.

Queensland.

A MEETING of the Branch was held on August 14th, Dr. Taylor being in the chair.

The SECRETARY reported the result of a conference with the Pharmaceutical Society with reference to the sale of narcotic drugs by chemists, a number of suggestions being made by the members of the Pharmaceutical Society.

The SECRETARY announced that a deputation from the Branch had waited upon the Premier asking for the recognition of the profession at State functions, and had been favourably received.

Drs. GARDE and LANE were nominated for membership.

A motion by Dr. HIRSCHFELD with reference to the desirability of classing cerebro-spinal meningitis among the notifiable cases was deferred.

Dr. WILTON LOVE exhibited: (1) Microscopic specimen of epithelioma from the vagina of a cow, showing a large number of "nests" crowded into a small space. (2) Specimen of urine containing uric acid crystals, from a patient whose symptoms simulated those of gonorrhœa.

Dr. TAYLOR read a paper on "Acute Septic Infection of the Left Temporal Bone occurring during an attack of the Measles."

West Australia.

AN ordinary general meeting was held on July 22nd. There were present: Drs. Kelsall (chairman), Astles, Thompson, Blackburne, Saw, Laurie, V. Black, Ramsay, Thorp, Newton and Randell.

Dr. SAW showed a pathological specimen of a cancerous tumour of the jaw.

Dr. KELSALL showed a case which had had the lens oculi partially dislocated and pressing on the ciliary body. He had removed the lens by operation, and the result was a fairly useful eye.

Dr. BLACKBURNE showed two tubercular supra-renal capsules, taken from a case of Addison's disease. There was slight lung trouble in the case.

It was resolved to revise the by-laws of the Branch.

Accounts amounting to £47 10s 7d were passed for payment.

FOR SALE. — ZEISS' MICROSCOPE, with three Objectives, two Eye Pieces, Abbé's Condenser, three Diaphragms, etc., in Cabinet. Price, £14. Apply A. R., care of L. Bruck, 15 Castlereagh-street, Sydney.

South Australia.

THE usual monthly meeting of this Branch was held on the evening of the 27th August at the University. Present: Dr. Jay (President) and 36 members and two visitors.

Dr. T. K. HAMILTON exhibited the following cases:—

1. *Unilateral Anophthalmia.*

2. Panas' operation for *Chronic Dacrucystitis with Fistula.*

3. Webster FOX's operation for *Divergent Strabismus.*

4. *Traumatic Irido-cyclitis*, demonstrating the efficacy of sub-conjunctival injections of Pœhl's Physiological Salt Solution as a means of helping to save a globe from enucleation.

5. *Paralysis of an Ocular Muscle, due to bullet injury of the head.*—The patient when on active service in South Africa was hit by a bullet. The projectile struck the brass buckle of his hat, which diverted it from its course, so that it glanced off the right parietal bone, leaving a splinter impacted in the scalp, but without any injury to the bone. There was complete blindness of the right eye for some weeks afterwards, and on his recovering binocular vision he was found to have diplopia. This is due to partial paralysis of the left external rectus, requiring No. 3 prism to cause fusion of the images. The following correction makes his vision almost normal, and corrects the diplopia:—

R.—0·25D. ⊂ 0·75D. ax. 80 ⊂ Prism 1·50 base outwards.

L.—0·25D. ⊂ 0·25D. ax. 65 ⊂ Prism 1·50 base outwards.

6. *Two cases of Complete Bony Occlusion of the Choanæ.* (*a*) Left nostril quite closed by a plate of bone, which is more dense in its lower part, and is found to project some distance forward along the floor of the nostril. The other nostril is quite patent, and, with the exception of the bony obstruction in the left, perfect symmetry exists throughout both cavities. (*b*) Bilateral occlusion, similar to case A. The patency on each side has been restored by drilling an opening through the septa, with subsequent chiselling away of the bony obstruction.

Dr. A. E. WIGG showed a patient with an interesting and rare form of skin disease.

Prof. WATSON showed following specimens:—

1. Cavernous angioma of finger from a woman, *æt.* 30, who gradually developed a club-shaped terminal phalanx after an injury five years before.
Dr. A. CUDMORE.

2. Cancerous mamma, with portion of pectorales and axillary contents attached, from an obese woman whose painful adiposis decreased in a marked manner after its removal. Dr. CAVENAGH-MAINWARING.

3. Cancer of liver from a multipara, *æt.* 80. The presence of a solitary gallstone in the centre of the mass reveals its gall-bladder origin.
Dr. ANGAS-JOHNSON.

4. Soft sarcoma perforating the posterior uterine wall, from a 4-para, *æt.* 53 (youngest child *æt.* 17). Five months before removal of the uterus hæmorrhage set in and gradually increased. Dr. J. A. G. HAMILTON.

5. Spongy myoma occupying the posterior uterine wall, from a 10-para, *æt.* 50, who remained an invalid after the birth of her last child, *æt.* five. Metrorrhagia appeared six months before removal of uterus. The uterine vessels on the left side were embedded in cartilaginoid tissue of inflammatory origin unconnected with the rapidly growing myoma uteri.
Dr. J. A. G. HAMILTON.

6. Spongy myoma which occupied the left broad ligament of a 3-para, *æt.* 46, afflicted with a ventral hernia and complaining of pain down the left leg. The

Digitized by Google

uterine artery lay behind the connection of the tumour with the uterus, but one of the uterine veins coursed in front and was unnecessarily spiked. The vessels were tied and the hernia repaired with kangaroo tendon prepared by the method adopted by Dr. Hamilton from Dr. Hagenauer. Dr. J. A. G. HAMILTON.

7. Vermiform appendix and enlarged right tube and ovary, from a young lady who had been previously operated upon for an abscess (appendicitis), with the usual sequence of persistent sinus, etc. The second operation revealed the fact that an escaped concretion containing vegetable fibres and birdseed had become imprisoned between the ovary and meso-salpinx and given rise to a pseudo-tubercular pyo-salpinx. The alternate (left) tube and ovary were quite healthy. The appendix was bent and contracted, and locally adherent (to the iliac mesentery) at the site of its former rupture. This case exemplifies the wisdom of Dr. Hinder's aphorism: "Concretion, then the appendix."
Dr. J. A. G. HAMILTON.

8. Pyonephrotic right kidney, which contained half a gallon of pus. It was stabbed, decapsulated and removed unbroken like an empty bag, and the vessels tied separately. The ureter was slit downwards, and an impacted calculus removed from near the pelvic brim. The patient is a squatter from the north, who drove a buggy 100 miles on his journey south.
Dr. J. A. G. HAMILTON.

9. Cross-section of an apparently well-healed laparotomy wound, closed by triple layer suture of catgut a month before death. A tunnel containing viscid blood-stained fluid, roofed in by the subcutaneous fat, lay in front of the firmly united aponeurosis.
Dr. J. A. G. HAMILTON.

10. Dilated jejunal loop, forming a vicious circle, which gave rise to symptoms of obstruction in an old woman who died a week after an abdominal hysterectomy.
Dr. J. A. G. HAMILTON.

11. Torsion of hypertrophically dilated cæcum from a man, *æt.* 63, who died of heart failure during an attack of intestinal colic. Dr. ANGAS-JOHNSON.

12. Adenomatous prostate, weighing seven ounces, removed in two portions from the father of one of our colleagues by Freyer's method. The prostatic and portion of the membraneous urethra, as well as the middle lobe, came away with the right, although smaller, half of the tumour. The patient commenced to micturate spontaneously on the eleventh day, and on the fifteenth day passed some small sloughs without any pain. He had led a catheter life for six years.
Dr. W. ANSTEY-GILES.

Dr. J. C. VERCO showed a lipoma from a woman of 29. It was romoved from the upper and back part of the left forearm. About one-fourth part of the tumour was found to be subcutaneous; lying in the subcutaneous fat of a rather stout lady. A hole in the deep fascia, about as large as a half-crown piece, had to be enlarged upwards and downwards to allow the removal of the remaining three-fourths, which at the upper end ran up towards the axilla between the overlapping edges of the deltoid and triceps muscles, at which point it was most attached. It was evidently originally an intermuscular lipoma, which, after growing beneath the fascia, had perforated this, or found an aperture and protruded through it, and then grown considerably in the subcutaneous tissue.

Minutes of last meeting were taken as read and signed.

Papers were then read by Drs. GAULT and W. T. HAYWARD on "Pneumothorax."

Dr. J. C. VERCO agreed with the President that in South Australia tubercle is the most common cause of pneumothorax, and the next most common cause is hydatid disease. He referred to the case of a young man who came into the Adelaide Hospital with left pneumothorax. There was no evident cause, and the lung quickly expanded, and he was discharged cured. Some time afterwards he coughed up hydatid skins. Possibly the case recorded by Dr. Gault might prove to be of the same nature. A second case, in a man of 46, was first seen when there were signs of a right pyo-pneumothorax. A rib was resected and pus evacuated. The finger in the chest felt the collapsed lung, and a hole in it, and in this a large hydatid membrane. This was removed, and he recovered. A woman about 35 got a left pneumothorax, without evident cause, and with all the usual signs. Six months afterwards the left chest was full of fluid up to the clavicle. After about three years she began to cough up hydatid skins and pus, which were raised for some months at intervals. An interesting circumstance may be noted that in both the latter cases tuberculosis subsequently developed. In the man it was detected 12 years after his pneumothorax, physical signs appearing in both lungs, and tubercle bacilli being found; and in the woman after an interval of 5½ years. The damaged lung and the overworked lung would seem to have less power of resisting the invasion of the germ.

Dr. A A. HAMILTON then read a paper on a case of "Chronic Ascites."

New Pharmaceutical Products.

KELENE.—We have received from Messrs. H. J. Langdon & Co., of Melbourne (agents for the Société Chimique des Usines du Rhône), samples of the above, both for local and general anæsthesia. A jet of the kélène directed on to the skin where the incision is to be made speedily renders it analgesic, and will be found very useful in the opening of abscesses. It is claimed that from three to five grammes of kélène administered on a suitable mask will produce complete general anæsthesia in from one to two minutes, which will last about four minutes. From its quick action it is also used as a preliminary to chloroform or ether. Kélène is a registered word for pure chloride of ethyl.

PURGEN.—We have received from Messrs. Kirby & Co., Ltd., of Newman-street, London, samples of the above, which they claim to be an "ideal purgative." Some particulars of it will be found in our advertising columns, and a full description will be found in the *British Medical Journal* of October 18th, 1902, in a paper read before the British Medical Association at Manchester.

PRACTICES FOR SALE.

CITY.—General Practice, established over 25 years. Splendid rooms; in excellent position, at moderate rent. Cash receipts over £1000.

N.S.W.—Practice, established two years, in good district and with good climate. Cash receipts for the two years, £900. Price, £125.

N.S.W.—Unopposed Practice, near Sydney. Cash takings, £400. Price, £100. A purchaser willing to buy this can be financed.

N.S.W.—Unopposed Medical Opening, with Hospital and other appointments.

N.Z.—Several good unopposed openings.

MR. F. W. LOXTON,
16 O'Connell-street, Sydney.

Digitized by Google

REVIEW OF CURRENT MEDICAL LITERATURE.

SURGERY.

A Review of Three Hundred and Three Operations upon the Stomach and first portion of the Duodenum.

Mayo (*Annals of Surgery*, July, 1903) contributes the above review. Functionally the small bowel begins at the entrance of the common duct of the liver and pancreas, which about marks the primitive division between the foregut and the midgut. The first portion of the duodenum may be said to be the vestibule of the intestinal tract, and its diseases partake more of the character of those of the stomach rather than the intestine. As in the majority of cases, lesions at this point cannot be diagnosticated from similar diseases in the stomach; they are associated into a single group. The average age of the 303 cases was 42; males, 42 per cent.; females, 58 per cent. There were 26 cases affecting the duodenum, with two deaths. Lesions of the first portion of the duodenum can be divided into two groups: first, those due to ulcer; and second, those associated with gall-bladder disease. In 11, ulcer limited to the duodenum was found; in five, ulcers existed upon both the stomach and duodenum. The lesion in the duodenum was frequently associated with gallstone disease, and these, with one exception, occurred in females. In no instance was the duodenum the seat of primary malignant disease, and in but two cases was there any evidence of extension from pyloric cancer, and then it was not marked. The stomach cases numbered 277, with 28 deaths. These were divided into two groups: first, gastric ulcer and associated causes of stomach disturbance; second, cancer of the stomach. In the benign group there were 168 operated cases, with 11 deaths. Nearly all these were cases of chronic ulcer and its late cicatricial results. The author thinks there can be no doubt that in the causation of gastric ulcer perverted stomach secretion is the most important manifestation in the majority of cases. In operating upon cases of this description the excessive amount of gastric secretion is constantly in evidence, and the results of drainage operations in relieving the distress and healing the ulcer bear out the importance of this view of the case. Such wide variations were found in the conditions present that no orderly classification could be made on a purely clinical basis. In a general way, the following answered satisfactorily: —1. Round and fissure ulcers: (*a*) acute; (*b*) chronic. They have the distinguishing feature that there is but little thickening about the base of the ulcer. 2. Mucous erosions; a condition which must be accepted with caution. 3. Chronic ulcer, with a thickened base, and usually irregular in form; probably an extensive variety of the chronic round ulcer. 4. Benign obstructions without regard to cause, although usually of inflammatory origin. The last two varieties are most frequently met with. Operation is most frequently called for in the acute cases by that peculiar perforation so graphically portrayed by Rokitansy, "cut out by a punch"; or by severe hæmorrhage from the stomach. The chief obstacle to accurate diagnosis lies in the surgical indications which are to be met. Round ulcers and erosions are often multiple, and, as a rule, do not cause cicatricial contraction of the pylorus. Clinical experience has demonstrated that drainage is the best method of surgical treatment with which we are acquainted; therefore, an exploration, however attractive to the surgeon, is not completed, but the surgical indications are fulfilled by some form of gastro-intestinal operation, and the diagnosis remains unproved. If round ulcer is found, excision is the proper course; but there is always the chance that the ulcer excised is not the only one, and that others may exist undetected or in an inaccessible situation. The majority of the operations were for thick-based chronic ulcer of the stomach or its late results, and these cases were very satisfactory. As a rule, the ulcer was located near the lesser curvature, and not infrequently at the pylorus. The posterior wall was affected more often than the anterior, if only one surface was involved. On the duodenum the anterior wall was most often the seat of ulceration. Conditions favourable for excision were found in three cases only. Cancer of the stomach, 109 cases, 17 deaths. Late diagnosis and cachexia make the aspect of this group discouraging. The hope of the future lies in early exploratory incision, and the necessity for this depends upon clinical observation rather than laboratory methods, which too often only become valuable when the extent of the disease is beyond cure. After dealing with the lymphatics of the stomach, and the importance of early operation, the author states that excision of all the stomach lying below and to the right of a line drawn between the gastric artery and the left gastro-epiploic vessel is the logical operation. The steps of the operation are detailed; the ends of the duodenum and stomach are separately closed, and a gastro-jejunostomy performed, and an anastomosis is also made between the limbs of the jejunum. The advantage of removing the major part of the greater curvature is open to doubt. Cuneo demonstrated that the lymph current along the greater curvature was from left to right. Hartman bases his line of section upon this fact, and removes all of the lesser curvature, and saves as much as possible of the greater curvature. In 27 cases the author performed some form of radical operation with six deaths. Gastro-jejunostomy for benign obstruction at the pylorus is one of the most satisfactory operations; it rapidly drains from the lowest point, and if the obstruction is permanent, the new opening does not contract materially. Where the pylorus is unobstructed, gastro-jejunostomy is far from satisfactory. Were it not for the mortality, resection of the muscular pyloric portion of the stomach would be indicated in gastric ulcer, as in this way the ulcer-bearing area would be permanently disposed of and an absolute cure insured.

Gastric Ulcer and its Surgery.

Carless (*Lancet*, July 18th, 1903) contributes a clinical lecture on the above. After quoting different statistics as to its frequency, he thinks it passing strange that our knowledge of its etiology is so very defective. He appears to favour the view recently expressed by Gordon, of Exeter, that the most likely cause is the contact of some microbe swallowed with the food with an inflamed patch of mucous membrane. Ulcers are most prevalent in those parts of the stomach where the secretion is alkaline, as at the pylorus. The characteristics of the acute and of the chronic ulcer are dealt with, and the mortality rate from medical treatment is unfavourably compared with that from surgical treatment. The conditions in which the surgeon is most likely to be interested are considered under five headings:—1. *Recurrence or persistence* without obvious complication is quite sufficient warrant for surgical interference. Patients in whom symptoms persist in spite of suitable dieting, or even rectal alimentation, are probably the subjects of a chronic ulcer which may attain considerable dimensions, and is likely to be adherent to surrounding structures, especially when it is situated on the posterior wall. Complete removal of the ulcer would be the ideal treatment, but such is usually impracticable owing to its size and position. One is, therefore, limited to a choice between

Digitized by Google

pyloroplasty and gastro-enterostomy; and, for reasons given, it is better to rely on the latter. 2. *Hæmorrhage* is one of the most characteristic phenomena connected with ulcers of the stomach, and may require operative treatment. It is said to occur in about 50 per cent. of the cases, and is responsible for from 3 to 11 per cent. of the deaths from this affection. The patient seldom dies from the hæmorrhage in cases of acute ulcer, but from perforation. In hæmorrhage from chronic ulcer the vessel is very unlikely to close of itself, because contraction is almost impossible on account of the infiltration of the tissues. (This condition has lately been fully discussed by Mayo Robson, and noted in these columns.) Where feasible, complete excision of the ulcer is the proper practice; but, failing that, gastro-enterostomy should be performed to put the organ at rest. 3. *Perforation* of a gastric ulcer is certainly the most alarming complication that may arise in its course. The statistics of various operators as to the percentage of perforations are given, but the author agrees with Welch that the proportion of perforations is about 6 per cent. Taken generally, perforation is about five times as frequent in women as in men. Perforation is much more frequent on the anterior wall than on the posterior wall. Any patient with gastric ulcer who complains of gradually increasing pain should be looked on as possibly on the way towards perforation. The actual perforation is due to traumatism in many cases. The outlook of these cases, apart from operative treatment, is dark indeed, since about 96 per cent. of them are probably doomed to death. The prognosis of operative treatment depends almost entirely upon the period at which operation is undertaken. Mikulicz reported to the German Surgical Congress that of 35 cases of perforating gastric ulcer operated on between the years 1885 and 1893, only one recovered. The mortality in cases operated upon within twelve hours has been reduced to 25 per cent. Excision may be undertaken in favourable cases, but in the majority of cases it is not to be thought of, and the best that can be done is to tuck the edges of the opening well in, and to secure the fold of serous membrane thus made by a double row of Lembert or Halstead sutures. One detail that must not be overlooked in closing the perforation, namely, that, if possible, the stomach wall should be infolded so that the scar may subsequently lie in the transverse axis of the viscus, and not in the longitudinal. Special care must be directed to the cleansing of the peritoneal cavity, and in some cases drainage tubes must be placed in Douglas' pouch and in the loins. 4. *Perigastric abscess* is a fourth complication requiring surgical interference. As these localised abscesses are most likely to develop in connection with a chronic ulcer, they are most usually found originating in relation with the posterior gastric wall. The pus collects in immediate relation with the under surface of the diaphragm, constituting a sub-phrenic abscess, and not infrequently the toxic material is absorbed by the lymphatics of the diaphragm, and leads to an infection of the lower portion of the pleural cavity, constituting a basal empyema. Drainage must be provided at the most accessible spot, and, if need be, a counter opening made, a proceeding often involving the opening of the pleural cavity. 5. Finally, complications necessitating surgical treatment arise as a result of the *contraction* which is always associated with the cicatrisation of ulcers. The most marked trouble arises from stenosis of the pylorus, and this may be due to a general contraction of the orifice or to the scar of an ulcer on one side of it, the aperture being thereby made slit-like or triangular, or to the drag of an adhesion from without, especially if such comes from above and pulls the gut upwards, thereby kinking it. When the cicatrix involves the body of the stomach it may cause considerable modifications of shape, but the most characteristic are those due to a scar forming along the lesser curvature, and that resulting from a large transversely placed ulcer. The *hour-glass stomach* results from the contraction of a transversely placed ulcer of the body of the viscus. Pyloroplasty, pylorectomy, and gastro-plication are the operations indicated in these conditions. Where, however, these procedures, directed towards the pylorus itself, are for one reason or another contra-indicated, gastro-enterostomy must be relied upon, and the result will probably be most beneficial.

Hepatectomy for the Removal of Riedel's Lobe.

Lockwood (*Lancet*, July 25th, 1903) contributes a short paper on the above. Although Riedel's lobe is not a common abnormality, it has to be taken into account in the diagnosis of abdominal tumours. It is a tongue-shaped piece of healthy liver which hangs from the right lobe. It may be united by a broad base—which occasionally has a broad, shallow groove—or it may have a distinct neck and hang from the liver like a huge polypus. The symptoms associated with it are usually referred to the gall-bladder. In the case here reported the patient was a young unmarried woman who complained of abdominal pain. A tumour could be felt just outside the middle third of the right linea semi-lunaris, which moved with respiration, was smooth and painless, and slipped back towards the right lumbar region just like a movable kidney. The diagnosis was a movable kidney, and a horseshoe belt was worn for a time without benefit. Later, the appendix was removed, and it was then that the nature of the tumour was recognised. As the pain continued, it was removed on February 28th, 1903, by a 3-inch incision in the right linea semi-lunaris. The tumour was easily withdrawn until its junction with the right lobe of the liver came into view. Anterior and posterior incisions were carried obliquely into the base of the tumour from without, inwards, so as to remove it and to leave a pair of flaps of liver substance. Some of the hepatic vessels bled, and were secured with an encircling suture of No. ·00 twisted silk. This suture was buried in the liver substance by transfixing the latter with a small, fully-curved Hagedorn's needle. The flaps of liver substance were brought together with about 8 or 10 sutures of No. 3 twisted silk. The operation was concluded in the usual way by closing the layers of the abdominal wall with rows of buried silk. The patient made a rapid and perfect recovery.

The Use of the Electrothermic Angiotribe in lieu of the Employment of Ligatures in the Open Operation for the relief of Varicocele.

Horwitz (*Philadelphia Medical Journal*, March 28th, 1903) contributes a short paper on the above subject. The author, after some preliminary remarks as to the cases requiring operative treatment, and pointing out that every operator of experience finds that occasionally, in spite of his precautions, the ligatures applied to the veins become infected and lead to suppuration, describes a case which he treated with Dr. Downes' electrothermic angiotribe, in place of the ordinary ligature. When the angiotribe was released the stumps were found to be ribbon shaped and firmly adherent. After the patient had recovered from the anæsthetic no medical treatment was necessary. There was no pain nor tenderness about the wound, a condition which is usually present for a day or two after a ligature has been employed. The advantages of Downes' instrument over the simple angiotribe suggested by Freeman would appear to be:—

1. The substitution of a more scientific, less crude, and less dangerous method than that depending on violent traumatism so as to produce hæmostasis.

Digitized by Google

2. There is less danger of secondary hæmorrhage.
3. There is less danger from thrombus.
4. Operation is not followed by pain.
5. The use of the electrothermic instrument is not conducive to the production of orchitis, a condition commonly attending operations in the vicinity of the cord.

DISEASE OF EAR, NOSE AND THROAT.

Dangers of Paraffin Injection into the Nose.

Hurd and Holden (*Medical Record*, July 11th) report a case of their own in which an injection of paraffin into the nose was followed immediately by blindness from embolism of the central artery of the retina. The patient, a man of 32 years, had already had two injections into the nose. On the third occasion a mixture of paraffin (melting point, 130°) and white vaseline, having together a melting point of 110° of semi-solid consistency, was injected. At the time the patient was seen to rub his right eye, and in reply to a question said he could not see with it. A little later ecchymoses appeared about the tip of the nose, indicating that a vein had been punctured. An examination of the eye 25 minutes after the injection showed the usual signs of embolism of the central artery. Energetic treatment was employed, but no improvement in vision was obtained. The authors quote another case, recorded by Leiser. In this case, after the third injection of paraffin into the nose, the patient collapsed, but recovered after the injection of ether and the performance of artificial respiration, although he continued to vomit for hours. After recovering consciousness, the patient found that he was entirely blind in his left eye. The authors state that they have much difficulty in explaining the pathological conditions in these cases, since a foreign body, large enough to block the large central artery can hardly be supposed, after entering a vein, to pass through the capillaries of the lungs and back to the left side of the heart, and thence into the general arterial circulation. It was suggested that there was a possibility of there being a persistent foramen ovale between the two auricles, through which foreign bodies entering the veins might pass direct from the right to the left auricle, and, avoiding the pulmonary circulation, give rise to a crossed embolism, so-called, somewhere in the general arterial circulation. Since communications of considerable size between the auricles are not infrequently found at autopsies, this explanation seems plausible. The obvious lessons taught by these cases is that loss of vision, and even of life, may follow the injection of paraffin into a vein. This danger could be partly avoided, doubtless, by performing aspiration after introduction of the needle, and if there was no evidence of penetration of a vein, injecting the paraffin through the needle without moving it. There would remain, however, the possibility that the needle had passed entirely through and beyond a vein, and then the paraffin, when injected under high pressure, might in its ramifications pass backward along the course of the needle, and thus gain entrance into the vein.

Atrophic Rhinitis successfully treated by Acetozone.

Brown (*Medicine*, July, 1903) gives particulars of three cases of atrophic rhinitis which he has treated successfully with benzoyl. acetyl. peroxide (acetozone). In all cases there was crust formation in the nose and an unpleasant odour, with shrinking of the turbinated bodies. An alkaline lotion was used to remove the crusts, and the acetozone was then applied by means of a spray, using it daily. In all three cases the crust formation has ceased, and the interior of the nose looks more healthy. The solution used was made by incorporating about one-half per cent. of pure acetozone in a neutral inorganic oil used in an atomiser.

Control of Mouth-breathing at Night.

Tufts (*American Medicine*, Jan., 1903) has had difficulty in controlling mouth-breathing by the ordinary methods. A simple plan of overcoming the difficulty is to fasten the lips together with a piece of silk isinglass court-plaster. For a number of years he has made mouth-breathing a subject of careful observation. He finds that 90 per cent. of his patients with acute and chronic diseases of the respiratory tract are mouth-breathers at night. Stenosis must be relieved in every case, but this is not sufficient to overcome the mouth-breathing, which remains a fixed habit.

Treatment of Acute Laryngitis of Singers.

Curtis (*Laryngoscope*, April, 1903), in the acute laryngitis of singers, prescribes either absolute silence or a tone whispered on the lips with no laryngeal quality in the voice. This must be enjoined till the sound written *humph* may be made without effort through the nose, the mouth being closed. Afterwards vocal exercises should be employed, using words like *ming, mong; ding, dong; mow, maw*. Strychnine should be given from the first, and static or faradic electricity applied along the course of the recurrent laryngeal nerves. At this stage the use of adrenalin chloride solution sprayed into the larynx before doing the tone exercises is of the greatest value at this stage. He also recommends massage on either side of the trachea and thyroid, as well as under the ramus and angle of the jaw. After the massages a cold pack is applied to the throat, and the pyriform sinuses are swabbed out with tincture of iodine and glycerine (equal parts) to stimulate the nerves and produce a counter-irritation without the vocal larynx. This method of procedure will often abort a commencing laryngitis. After a laryngitis has been relieved in this manner, a spray of adrenalin ($\frac{1}{5000}$) should be used before a performance, alternated with an inhalation of menthol in albolene (5 to 10 grains to the ounce).

Toxic Rhinitis.

Grayson (*Trans. American Laryn. Society*) believes that the common cold in the head is due to a faulty blood state induced by indiscreet eating. He says the influence of the weather has little to do with the disease, and that changes in temperature do no more than hasten what would in all probability occur a little later without their assistance. Treatment is correction of diet with vigorous exercise. He condemns "Rhinitis" and "Coryza" tablets, as the rhinorrhœa is only a symptom of the underlying disease. Regarding drugs, he says: "If we except those that may be used to empty and cleanse the gastro-intestinal tract, there are none that compare in remedial action to vigorous exercise. A half-hour with the foils or gloves, a 10-mile ride on a hard-trotting horse, followed by a cold shower and a hard rub, will do more to subdue an auto-toxic rhinitis than the cleverest combination of diaplinetics or anti-lithics. The energising effect of such work upon the general circulation, the vaso-motor apparatus and the whole mechanism of exertion will afford prompt relief; while remaining indoors and being coddled will only retard the elimination of the offending toxines."

Digitized by Google

THERAPEUTICS.

The Nauheim Treatment of Chronic Heart Affections.

Leslie Thorne Thorne (*Lancet*, July 18th, 1903) refers to his previous paper on this method of treatment of heart disease, which was published in the *Lancet* of March 21st, 1903, in which he gives his own experience of this treatment at Llangammarch and in London, with the modifications he has found necessary in the application of the treatment in England. In the present paper he proceeds to point out the class of case in which the Nauheim treatment may and may not be employed with advantage:—1. In the first group of cases which will be cured or benefited very greatly by the treatment he includes cases of dilated, enfeebled and irritable heart (a sequel of influenza), which as a rule do not respond to treatment by drugs, rest or change of air. Another class of case which belongs to this first group is that of the dilated and enfeebled heart produced by increased arterial tension present in the circulation of patients suffering from the rheumatic or gouty diatheses. Cases of cardiac enfeeblement from excessive smoking and prolonged illnesses, such as typhoid fever and malaria, belong also to this group, the Nauheim treatment being in these cases a most valuable aid to such methods of cure as rest, tonics and change of air, and producing a much more rapid return to health than could otherwise be expected. 2. Cases which cannot be cured, but can be greatly benefited. In this group he ranks cases both of rheumatic and gouty origin in which the valves have been permanently injured and signs of commencing cardiac failure, such as shortness of breath, palpitation, cyanosis and pain, are present. 3. Doubtful cases. Among these the author classes a large number of the more advanced forms of valvular affections, whether the result of gout, rheumatism or other diseases, in which the recuperative powers have been undermined by climatic effect, habits of intemperance or prolonged illness, and the patient is losing ground. That the treatment should be tried in many of these cases, when all other methods have proved ineffectual, is only fair to the patient, but it is of great importance that it should be administered by one who is thoroughly conversant with it, because the smallest details may make a difference between success or failure in benefiting the case. 4. As to the group of cases to be classed as unsuitable, authorities greatly differ, but the author's experience leads him to include under this group patients who have been or are habitually heavy drinkers, or those with syphilitic affections of the heart, those with marked degeneration of the vessel walls, those with typical symptoms of aortic regurgitation, and very old people. The chronic heart case usually met with in hospitals, broken down by a long struggle to work when unfit, and accustomed to bad and insufficient food, is also one of the most unsatisfactory class for this method of treatment.

Milk Diet in Nephritis.

Croftan (*Medical Record*, July, 1903) discusses first the effect of an exclusive milk diet on general nutrition. Theoretically, full nutrition can be maintained on an exclusive milk diet; but, in order to do this, enormous quantities of milk must be consumed, and even then there is a deficiency of one all-important element—iron. Aside from overloading the stomach, and flooding the circulation with enormous quantities of water, we force the patient to assimilate and disassimilate nearly twice as much albumin as he is accustomed to and as he requires. As far as the renal epithelia are concerned, much water, much urea and much phosphate, all elements that are carried to the kidneys in large quantities when we feed our nephritics on an exclusively milk diet, act as irritants to the renal epithelia, and are consequently harmful. The ingestion of large amounts of water mechanically does injury to the stomach, the heart and arteries. The writer does not think that we are at present able to formulate any fixed rules in regard to the dieting of patients suffering from nephritis. He thinks that the consensus of clinical experience speaks for more liberal feeding of kidney cases than is usually adopted, and decidedly against one-sided alimentation. It speaks by all means against an exclusive milk diet.

The Treatment of Syphilis.

Much diversity of opinion still exists on the question when to begin the use of mercury. Max Joseph and von During advocate the postponement of administering mercury until the diagnosis of syphilis has been confirmed by the appearance of the roseola and other secondary symptoms, as they maintain it to be impossible to get patients to continue the treatment for sufficiently long periods if the diagnosis of syphilis has been made only on the presence of a chancre and some slight swelling of the glands. Among other authorities, A. H. Ward, of the London Lock Hospital (*Medical Times and Hospital Gazette*, February, 1903), argues that to wait until the secondary outbreak occurs before putting on the break of the mercurial treatment is like "shutting the stable door after the steed is stolen." He admits that to wait for secondaries may be an advantage in securing the conviction of the patient as to his having actually contracted syphilis. But in all cases it is desirable to wait until the primary chancre is undoubtedly syphilitic in character; this is known by its induration, and the extension of that induration to the nearest lymphatic glands. Fournier, also, in his latest work, "Traitment de la Syphilis," advocates strongly the necessity for early treatment; and he professes himself in accord with Hutchinson that it is impossible to begin too soon. As to the exact method to be adopted for the administration of mercury, there appears to be a tendency towards adopting the Continental or interrupted method, and especially inunction. In ordinary cases the treatment lasts two years, and consists of four mercurial courses with iodide of potassium in the intervals. The first and last of these are inunctions. Fournier strongly recommends an interrupted course even when the drug is given by the mouth. The latter method he recommends on the score of convenience. The period of treatment he extends to three, if not four, years. After this, iodide of potassium should be given from time to time for two or three years. Von During, on the other hand, advises subcutaneous injection. From ·08 to 1 gram. of the salicylate is injected twice weekly. As a rule 10 to 15 injections are enough, and are followed by a course of iodide. The iodide courses are given as long as symptoms persist. If no symptoms occur, no further specific treatment is ordered.

Treatment of Facial Acne.

Leredde (*Medicine Moderne*) recommends for the facial acne of young women the application of hot water by means of absorbent cotton, followed by the use of a lotion composed of mercury bichloride 15 to 30 grains, eau de Cologne 2 pints. Subsequently the spots are covered with a cream consisting of anhydrous lanolin 150 grains, rosewater 75 grains, and water 5 drachms. Sometimes touching the spots with an aqueous solution of ichthyol, 5 parts in 100, will prove efficacious. This should be preceded by washing with alcohol to remove grease.

Digitized by Google

CORRESPONDENCE.

London.

(FROM OUR OWN CORRESPONDENT.)

St. Bartholomew's Hospital—Restoration of Sight in one Born Blind—The French Sleeping Girl—The General Medical Council—The League of Mercy—The Royal Medical Benevolent College.

THE Lord Mayor's Committee of Inquiry into the affairs of St. Bartholomew's Hospital met at the Mansion House on the 5th May for the purpose of receiving the report of the sub-committee on administration and finance. The Lord Mayor presided, and after a lengthened consideration of the report the following resolution was unanimously agreed to:—"That this committee, having carefully considered the report of the sub-committee on the financial and administrative management of the hospital (which is summarised in the 'conclusions' given below), are of opinion that the governors have completely vindicated the reputation, character, and administration of the hospital, and are fully justified in appealing to the public for funds to enable them to utilise the land acquired from Christ's Hospital, and to provide the new buildings urgently necessary to bring the hospital up to modern requirements in all respects." The conclusions at which the sub-committee had unanimously arrived were summarised in the report as follows:—(1) That the hospital is properly and economically administered, and that an increase rather than a reduction of expenditure must be looked for; (2) that any prospective increase of rental will be more than absorbed by the deficit caused by the purchase of land from Christ's Hospital, and, consequently (3), that no part of the outlay that will have to be incurred for new buildings can be provided out of the hospital's funds, except by additional borrowing that would entail a further loss of income.

Dr. Maitland Ramsay records in the *Lancet* of May 16th a remarkable case of a man aged 30, blind from birth, who had his sight restored to him after an operation at the Glasgow Ophthalmic Institute on February 24th, 1903. The patient was one of a family of seven, and one sister as well as himself was born blind, while another lost her sight when she was two years old. The ister who was born blind was brought up in the blind asylum, but Dr. Ramsay's patient had been allowed to run about without any attempt to educate him having ever been made. He became, however, so familiar with the country district in which he resided that he was able to go fearlessly about; and his hearing was so acute that he had no difficulty in keeping himself out of danger. He seemed to perceive any object that came in his way, and was able to avoid it. He could tell a wall from a hedge by the sound of the air coming through the leaves and branches of the latter. In a strange place he could not trust himself to go about without a guide, but in his native village where he was familiar with his surroundings he could, guided by the resonance of his footsteps, find his way to any house. Experience taught him to distinguish different flowers in the garden in which he worked, partly by touch, but mostly by smell, and he learned to gather them, arrange them in bunches, and pack them in boxes for the market with great accuracy. He recognised the presence of strangers chiefly by the sense of hearing, and was able to discriminate persons whom he knew by the sound of their breathing. When he worked in the harvest field he could bind the sheaves of grain and arrange them in stacks as well as any of his neighbour labourers. He was employed in the winter to feed cattle, and his sense of hearing guided him so unerringly that he had no difficulty in carrying food to the troughs in the cows' stalls. His eyes were small and deeply sunk. They moved continuously in their sockets, and there was a pronounced alternating convergent strabismus. The irides were natural, the pupils were active, and the intra-ocular tension was normal, but both lenses were completely cataractous. The patient was unable to distinguish objects, but could tell day from night, and could perceive a light and locate it accurately. The lens was removed from the right eye on March 11th, and that from the left eye a week later. Both lenses were small and shrivelled, and the nucleus of the right was calcareous. For about ten days after the operation the patient was dazed and unable to interpret what he saw. The first thing he actually perceived was the face of the house-surgeon, the meaning of which he came to realise by recalling what he knew from having felt his own. He was ignorant of colour, but rapidly learned to distinguish hues, that which took him longest to master being green, while the first and most readily discriminated was red. He quickly learned the letters of the alphabet. From the first he saw everything in its actual position, a fact which Dr. Ramsay looks upon as proving that the retinal inversion of a picture is interpreted psychically without education. One of his greatest pleasures was to look at the face of a watch, and within a day or two he could tell the time. He was unable to take in what he saw at a glance, but could distinguish things in a room more quickly than those at a distance out of doors. From the time he got out of bed he could guide himself with ease through a doorway, and walk about on the flat, but he had a difficulty in getting upstairs from inability to accurately gauge the height of each step. Judgment as to distance constituted one of his greatest troubles. The squint and ocular movements, though less pronounced, persisted after the operation, and made a satisfactory ophthalmoscopic examination almost impossible, but, so far as it could be ascertained, the fundi were normal. The functional activity of the optic nerves after removal of the cataractous lenses was a very prominent feature, and was in striking contrast to the incessant and purposeless muscular movements. It will be interesting to know whether eventually visual perceptions become entirely normal, and whether the ocular muscles acquire the power of controllable and co-ordinated action.

Marguerite Boyenval, of Thenelle, in the Department of Aisne, died towards the end of May after having been under the influence of an uninterrupted trance since May, 1883. During these 20 years her case has frequently been referred to both in the lay and medical press. She was close upon 22 years of age when she fell into a deep sleep. The only cause to which her trance could be attributed was an idea of which she became possessed, after the birth of a child, that for some reason the police were searching for her, and that she was in immediate danger of being arrested. At first she suffered from violent epileptiform attacks about every two months, though she did not recover consciousness, but gradually these crises subsided, all movement ceased, her jaws became tightly clenched, and she sank into a condition of profound unconsciousness, with physical insensibility and mental torpor. She was fed on peptone administered per rectum, and also through a tube inserted into her mouth at a place where a gap had been made by the removal of a tooth. Her face, though pale and wax-like, was not disagreeable to look at, but within recent years she developed symptoms of phthisis. Doctor Charlier, who has had charge of the

Digitized by Google

patient during the whole duration of her marvellous trance, observed on the 23rd May that she began to show signs of returning consciousness, that she moved her limbs, and that there was some relaxation of the muscular contraction. Three days later she still further recovered, and was able to answer the doctor's questions by a clearly whispered "Yes" or "No." Her weakness, however, was so great that she sank rapidly and expired a few hours after the first evidences of returning consciousness declared themselves. She was within two days of her 42nd birthday when she died, and her body, it is stated, was wasted to a mere shadow of skin and bone. This is probably one of the most extreme instances of cataleptic trance on record.

The seventy-sixth session of the General Council of Medical Education and Registration was opened on May 21st at 299 Oxford-street, by Sir William Turner, K.C.B., the President. Since the last meeting in November, Sir Wm. T. Gairdner has resigned on account of failing health, and Sir Hector Cameron's period of office has expired. These gentlemen have been respectively replaced by Professor McCall Anderson and Dr. John Lindsay Steven. In his opening address, Sir William Turner referred to the inspections which had been held of the examinations of the various licensing bodies; he also, *inter alia*, alluded to the financial condition of the Council, to the Medical Act of 1902, under which the Medical Council of Canada had been constituted, and to the bill which had been introduced and read a first time in the House of Commons for amending the penal and disciplinary powers of the Council and of the licensing bodies. The only important discussion arose on the Pharmacy Bill promoted by Mr. Lough, M.P. This bill is against the interests of practitioners, and ultimately, on the motion of Dr. MacAlister, the Council decided that the President should lay the matter before the Lord President of the Privy Council, and should state that in the opinion of the General Medical Council a bill which would so encroach upon the rights of the medical profession ought not to obtain the sanction of Parliament. Several penal cases were investigated, but none of them involved questions of special moment. The whole business of the Council was, on this occasion, without features of marked or widespread interest.

The Prince and Princess of Wales, in their capacity as Grand President and Lady Grand President of the League of Mercy, entertained upwards of 1500 members of the League at a garden party, at Marlborough House, on Friday, 22nd May. A formal meeting of the principal officers of the League was first held in the saloon, when the Prince of Wales delivered an address, in the course of which he stated his desire that it should be clearly known that the League was closely allied with the King's Hospital Fund, in aid of the purposes of which its business was to collect money. Mr. Harrison, M.V.O., read a report of the previous year's work, and it was announced that Lady Pirbright had that day sent a donation of £500 in memory of her husband, who had been President of the Guildford district. Subsequently an investiture of the Order of the League was held in the gardens, when about 50 members, including four medical men, were presented to the Prince by Lord Wolverton and decorated with the Order. Music was supplied during the afternoon by the band of the Royal Marine Light Infantry from Chatham. The League of Mercy was founded in 1899, and during the four years of its existence it has contributed £22,000 to King Edward's Fund. The offices of the League are at 29 Southampton Row, and its work is carried on by a network of branches spread over London and the home counties.

The twenty-ninth festival dinner of the Royal Medical Benevolent College, at Epsom, was held on June 10th in the grand hall of the Hotel Cecil. The chair was occupied by H.R.H. the Prince of Wales, and the guests, numbering upwards of 430, included Lord Rosebery (the President of the College), together with many eminent men of science and letters, and most of the leading members of the medical profession resident in London. In proposing the toast of "Her Majesty Queen Alexandra, their Royal Highnesses the Prince and Princess of Wales, and the other members of the Royal Family," Sir William Church, President of the Royal College of Physicians, thanked the Prince for filling the office of chairman on that occasion, and reminded those present that the King was with the Prince Consort in 1855 when Epsom College was opened, and that as recently as 1895 the King had again visited the College, and laid the foundation stone of the lower school. The toast of "Success to the Royal Medical Benevolent College" was proposed by the Prince of Wales in a speech which Lord Rosebery aptly described as pathetic, eloquent and true. His Royal Highness commended the services rendered to humanity by the medical profession, and pointed out that a patient's indebtedness being seldom liquidated by the mere payment of the doctor's bill, such a charity as that for which he appealed offered a suitable field for thank-offerings. He stated that on the previous day he had paid a visit to Epsom, and that, from personal observation, he was able to express the conviction that the wishes and aspirations of Mr. John Propert, who founded the College in 1855, had been amply fulfilled. At the end of a successful evening, it was announced that the subscription lists amounted to the handsome grand total of £6526.

Tasmania.

(FROM OUR OWN CORRESPONDENT.)

The Smallpox Epidemic in Launceston.

SMALLPOX in epidemic form has disappeared from Launceston. From August 6th to September 1st there have been only three cases, two on the 21st August, in isolated contacts, and one on the 24th August from the original smallpox area. Such sporadic cases are, however, only to be expected.

Up to the beginning of September, the following are the rough figures of the epidemic, for which I am indebted to the courtesy of Drs. Elkington, Wilson and Barnard:—

Total number of cases 62

Of these, two cases are doubtful, and there are in addition to these, but not included, six other cases suspected to have been smallpox.

CASES TREATED AT THE ISOLATION HOSPITAL

	Cases treated.	Deaths.
Mild	17	0
Hæmorrhagic	3	3
Confluent and severe forms ..	28	10
	48	13

CASES TREATED AT HOME.

	Cases treated.	Deaths.
Mild	15	0
Hæmorrhagic	1	1
Confluent	9	2
	25	3

Several of the cases treated at their own homes were, when convalescent, sent to the isolation hospital, consequently they appear in both lists.

Digitized by Google

Of the fatal confluent cases treated at the isolation hospital, nearly all showed grave laryngeal and bronchial lesions with broncho-pneumonia.

In my former report it was stated that Dr. Elkington had been chosen by the Government, on the recommendation of Dr. Gresswell, of the Victorian Board of Health, to report on the smallpox question. His services have since been retained, and he has been appointed to take control of the sanitary administration while the disease continues, so that at last the Government has apparently realised the necessity for a chief medical adviser.

In Dr. Elkington, who by the way has been doing plague work in India, much of it of an original character, the Government have secured a capable sanitarian, so that we may now hope to have not only efficient control, but a very complete investigation of the outbreak. On the advice of the new officer the road patrols have been stopped, the mediæval methods of urban quarantine being relegated to the limbo of similar historic freaks. Considerable relaxation has already been made in the travelling regulations, and it is to be hoped that as soon as Dr. Elkington has satisfied himself as to the proper isolation of patients, contacts, and suspects, that all restrictions on State travel will be removed; at present, I imagine, they are valued by the authorities as a side door by means of which a certain amount of compulsory vaccination can be effected. The truth of the matter is, that if the principles of isolation are efficiently enforced, there is no need to restrict the right to travel to only the recently vaccinated.

I am a thorough supporter of vaccination, but I recognise that there is such a thing as vaccination intemperance, which, like all forms of that vice, will injure the best of causes. Vaccination ought to be carried on not by subterfuge, but, as by law established, openly, efficiently, and after scientific methods; in addition there should be inspection of all State paid vaccination.

Over 11,000 persons have been vaccinated in Launceston alone since the outbreak at the end of June, and the returns from other parts of the State will, doubtless, be proportionately large, so that Tasmania is rapidly being converted from an unvaccinated to a vaccinated country.

The Premier has announced his intention of appointing a Judge of the Supreme Court to hold an enquiry into the history of the whole affair. No mention is made of his having a medical colleague or colleagues associated with him; but common sense will, I trust, dictate such an addition. After all, it needs no enquiry to reveal the prime cause of the *débâcle*—namely, the total neglect of the public health, administration of the State, and the equal disregard of the advice tendered from time to time by the medical profession. Some years ago I quoted to the then Premier of Tasmania an extract from an address by the late Sir Grainger Stewart (the then President of the British Medical Association), words which then quoted as a warning might now read as a prophecy, and which the present Premier might well take to heart:—

"The duty of our profession is to do its best to prevent disease, to cure disease, and to alleviate suffering . . . . to protect the community against preventable maladies.

"The duty of the community is to afford us every facility for so doing.

"I wish that the Legislature would boldly accept the principle that as it is mainly guided by the opinion of lawyers as to legal questions, by those of soldiers in matters military, by practical seamen and engineers in matters concerning their department, so in medical questions it would look for guidance to the medical profession and give effect to its matured opinion."

Queensland.

(FROM OUR OWN CORRESPONDENT.)

Women on the Committee of the Brisbane Hospital—Hospital for Infectious Diseases—Decrease of Birth-rate—Sale of Narcotics—Medical Defence.

It has been decided by the almost unanimous vote of subscribers, present at the meeting, that women shall be represented on the committee of the Brisbane (General) Hospital. It will be interesting to watch developments, and everyone who is interested in hospital work will hope that the women who may be elected will do something towards popularising the most deserving institution in the State. One can hardly hope that the first efforts of the new committee will be in the direction of improvement in the arrangements for the honorary staff, but one does hope that the anomalous condition of affairs in that relation may not escape their notice. Even now the strength and value of the committee might be largely increased by the inclusion of one or more medical men.

The offer of the General Hospital to take over from the Joint Epidemic Board the management of its near neighbour, the Hospital for Infectious Diseases, has not been accepted. There is a good deal to be said on both sides, but, on the whole, one inclines to the opinion that some such arrangement as the present one is preferable to that suggested by the "General" offer. In the past, camps for infectious diseases have been formed and controlled by the General Hospital; such an arrangement must always be attended by a certain amount of danger, which can only be avoided by a completely separate staff and management. The present Hospital, "Wattlebrae," will, doubtless, become larger with time and necessity, and, as its size increases, the necessity for a staff separate from that of any other hospital will become more and more apparent.

The work of the Royal Commission to enquire into the decreased birth-rate in another State will be watched with universal interest. This is a question which, sufficiently important as it is to-day, will become of extreme gravity in the near future. The ease with which abortion can be produced, and its safety, are too well known. Hundreds of women operate regularly upon themselves, and those who have not the courage and skill to do this, but who wish to avoid the maternal responsibilities of the position, can, with comparative ease and little expense, obtain the service of male or female abortionists. The pity is that these things are so hard to prove. But when one hears persistently, and from all sorts of sources, that "So-and-so" must be doing a good business out of that class of work, one is almost compelled to fear that there may be some truth in the suspicion. Apart from this cause for the decrease in the birth-rate, there are others in which the medical profession are interested. So that, as I have said, one will look forward to the report of the Royal Commission, with the hope that there will be more practical result than has occurred in the past from similar enquiries.

The Council of the Queensland Branch met recently in conference the members of the Pharmaceutical Society on the question of the sale of narcotic drugs by chemists. The following suggestions were made by various speakers:—

1. That the provisions of the present Act be rigidly enforced.
2. That a more stringent Poisons Act be advocated.
3. That chemists only be allowed to sell poisons, and not, as at present, grocers, drapers, etc.

Digitized by Google

4. That a method similar to that adopted in France be followed—namely, that prescriptions containing poisonous drugs be not dispensed a second time without the permission of the medical man responsible for the prescription.
5. That the indiscriminate use of morphia, etc., by nurses be prevented.

The speeches of the pharmacists revealed a serious condition of things, the present Act, with its "poison-book," and so on, being apparently a dead-letter of the law; a patient or a messenger being able to obtain as large a supply of morphia from a chemist as he likes. It is to be hoped that the energy of the Branch will not stop short of the conference, but that united action will be taken at once to remedy the present evil state of affairs.

It seems a pity that the Medical Defence Society should not have received more support, especially from country members of the profession, than it has. No efforts have been spared by the Secretary to advertise the Society, but applications for membership are few and far between. It is too late to think of insuring one's house after the fire has occurred, or a life after death, and a little consideration should show medical men of how great importance membership of such a society may become.

HYOSCINE HYDROBROMIDE AS A PREVENTIVE FOR VOMITING AFTER CHLOROFORM ANÆSTHESIA.

(To the Editor of the Australasian Medical Gazette.)

SIR,—Any remedy that will even mitigate the distressing vomiting after chloroform anæsthesia will be welcomed by anæsthetists and surgeons, and consequently I desire to draw attention to the beneficial effects of hyoscine hydrobromide in this connection.

I have only recently tried it, as it were by chance, and have not sufficient experience of its use to speak with any authority. The results, however, which I have myself had (and others, too, acting on my suggestion) of its use have led me to give publicity to its action through your columns. The mode of use is simply to give, hypodermically, gr. $\frac{1}{100}$ immediately the anæsthetic is discontinued. I think it rather important to give it *at once* before sensation begins to return.

In the first case in which I tried it the patient had been repeatedly anæsthetised previously, and had always been very sick, even for two or three days. On this occasion, however, after the hydrobromide of hyoscine, she was, much to her delight, not at all sick. I have seen no reference to the use of this drug as a preventive for vomiting, and should be pleased to see the experience of others published. I do not, by any means, claim for it any infallible power, but believe it to be the best prophylactic I have yet tried, and I think I have tried most.

Thanking you in anticipation for the publication of this letter,—I am, yours faithfully,

J. E. FERGUSSON STEWART, M.B., C.M.

Midland Junction (W.A.), August 31st, 1903.

PRESIDENT'S OFFICIAL COSTUME.

N.S.W. BRANCH B.M.A.

(To the Editor of the Australasian Medical Gazette.)

SIR,—It has for a long time appeared to me that the importance of the position and the expectation of the public have required that, for suitable occasions, the President of the N.S.W. Branch of the B.M.A. should be provided with an official costume. Such a costume might be after the character of that of a Chancellor of an University, or of a President of a Royal College. The cost would range from 25 to 100 guineas. This expense would necessarily be borne by a special subscription.

Through your columns I earnestly request the members of the Branch to give the subject their favourable consideration and practical support. It has occurred to me that as a nucleus of a fund for the above object, those members who are entitled to a small balance from the "Gazette Purchase Fund" might be willing to allow their amounts to be devoted to this object, seeing that by so doing they would perform further good services for the Branch.

The hon. treasurer of the Branch (Dr. W. H. Crago) is willing to receive subscriptions for the above purpose. I have forwarded to him the balance due to me from the "Gazette Purchase Fund," and hope that other subscribers may do the same. I hope that the members generally may approve of the proposal and subscribe to the fund, and so enable the Council to efficiently deal with the matter. The subject has been brought before the Council.—I am, etc.,

JAMES ADAM DICK.

Randwick, N.S.W., September 5th, 1903.

OBITUARY.

THOMAS JAMES PICKBURN, M.D. (Aberd.), 1874; M.R.C.S. (Eng.), 1876; L.S.A. (Lond.), 1868, Sydney, N.S.W.

We regret to announce the death of Dr. Pickburn, which took place on August 18th at 22 College-street, where he had practised for the past 25 years. Born in London in 1846, the son of James Thomas Pickburn, the founder and for many years proprietor of the London *Daily Chronicle*, he was educated at the Aylesbury Grammar School, St. Bartholomew's Hospital, London, and Aberdeen University, where he graduated M.B., C.M. in 1868. Shortly afterwards he came to New South Wales, and commenced practice at Braidwood. He was subsequently at Terara, and was also assistant to the late Dr. Steer Bowker, M.L.C., at Newcastle. After spending a year in practice at Walcha, he left for England, when he took his M.D. degree in 1874, and the M.R.C.S. (Eng.) in 1876. He returned to Sydney in 1878, and started practice in College-street, where he remained until his death. Six years ago he was joined in partnership by Dr. Gledden. He was formerly Hon. Physician to St. Vincent's and the Sydney Hospitals, and, in conjunction with the late Dr. Arthur Annesley West, was one of the originators of the Hospital for Sick Children. Thomas Pickburn was a practitioner of the best stamp, honourable to a degree in all his actions, enthusiastic in his work, and a student and a worker to the end. In spite of indifferent health (he had suffered from gouty kidney for years), he carried on an extensive general practice, often attending to patients when he was more fitted to be one himself. Reserved in his manner, he had few intimates, but to these was revealed a rare charm of manner and highly cultured literary taste. He was a voluminous reader, both in professional and general subjects, and in his busiest years kept himself well abreast of the latest developments in medical literature. A month before his death he had a severe attack of angina while on his way from his home at Chatswood to the railway station, and though he continued his work for a fortnight, he had several minor seizures. After a fortnight's rest he felt so much better that he decided to

Digitized by Google

resume practice, though he well knew the probable result. He came back to his rooms on August 17th, and on the 18th, while seeing a patient, the angina returned. Everything that was possible was done to relieve him, but he died four hours after the onset of the attack. A few minutes before the end he had a good pulse, and said he felt easier and inclined to sleep. Then a sudden spasm came on, and in a few seconds all was over. He died in harness, as he would have wished. Dr. Pickburn was twice married, and leaves a widow and a large family, with whom we desire to express our sincere sympathy.

JOSEPH WHITAKER, M.D. (Q.U.I.), 1862; L.R.C.S. (Dub.), 1863; M.D. (Melb.), 1881, Melbourne.

We regret to report the death of Dr. Joseph Whitaker of North Melbourne, on September 4, at his residence, Victoria-street, at an early hour, from an attack of congestion of the lungs, following on an affection of the heart. Deceased was born in the north of Ireland and was 64 years of age. After serving as a surgeon in the Royal Navy for many years he came to Victoria, and for the past 20 years had resided at North Melbourne, where he held the position of local health officer. He was also medical officer of the Benevolent Asylum for some years.

HENRY OGLE MOORE, M.B. (Dub.), 1873, Dandenong, Victoria.

Dr. H. Ogle Moore died in Melbourne on 6th September. The deceased gentleman had an extensive practice in Dandenong, Victoria, for a number of years, and was highly esteemed in the district. His remains were interred in the Dandenong Cemetery.

MEDICAL MATTERS IN PARLIAMENT.

The Housing of Consumptives in New South Wales.—In the New South Wales Legislative Assembly the following motion has been agreed to:—"That, in the opinion of this House, the provision at present made for housing and treating the consumptives of this State is most unsatisfactory, and, in the interests of the citizens' health, it is eminently desirable that a suitable site be at once chosen, and new and appropriate buildings be erected for the accommodation of patients of both sexes affected by this disease."

The Leprosy Bill, N.S.W. — The Public Health (Leprosy) Bill, which passed the Legislative Assembly of New South Wales without amendment, was introduced in the Legislative Council by Mr. Hawken. Sir Normand MacLaurin said that the bill was a very improper and inhuman proposal. When the Leprosy Bill was passed years ago, it was pointed out that its great object was to deal with vagrant lepers who could make no provision for themselves, in order that they might be lodged where they would be taken care of. The danger of infection from leprosy was extremely small, and less than from consumption, where, after all, the danger again was very small. It was also pointed out that in the case of persons in affluent circumstances it would be possible for the Board of Health to isolate them rather than that they should be imprisoned in a place like Little Bay, which was not suitable for their reception. The present system was fair and just to everybody, and the bill was only introduced because of an agitation over a recent case in one of the suburbs, where persons were unnecessarily alarmed by the fears of neighbouring property-holders. He moved that the bill be read a second time six months hence. The amendment that the bill be read six months later was agreed to on the voices.

Preservatives in Food —A select committee has been appointed by the New South Wales Legislative Assembly to inquire into and report upon the use of the preservative and colouring matters in the preservation and colouring of food, and whether the use of such materials, or any of them, for the preservation and colouring of food in certain quantities is injurious to health; and, if so, in what proportions does their use become injurious; and to what extent and in what amounts are they used at the present time.

Medical Registration in New Zealand.—A Medical Practitioners' Registration Bill, supplementary to the existing Act of 1869, was read a first time in the House of Representatives on July 24. It repeals section 12 of the original Act, and introduces a new clause which provides (1) for the registration of any person registered on the Medical Register of the United Kingdom; (2) eligible for such registration; (3) graduates in medicine and surgery of the New Zealand University; (4) holder of a diploma granted by a University in any British possession after a course of not less than "five" years' study, providing that that possession will register medical practitioners of New Zealand. The only other clause of the bill permits a person whose name has been erased from the register to apply to the Supreme Court for reinstatement, which may order reinstatement either conditionally or upon terms, or may refuse. The grounds on which the erasures from the register may be made are fraudulent representations or mistaken registration, felony, or misdemeanour within the British Empire. In Committee, on August 17, the clause providing for reinstatement was struck out. A new clause was moved—"Any person who practises as a medical practitioner without being registered shall be liable for a first offence to a penalty of £100, and for a second offence to an imprisonment for not less than 12 months. The Committee divided: in favour were the two tellers; against the clause 40 votes. "Any University which, in the opinion of the Governor-in-Council is equal in status to that of New Zealand" was placed on the same footing as the New Zealand University. "Medical or surgical degree" was made to read "medical and surgical degree."

Compulsory Vaccination in Tasmania.—A motion has been brought before the House of Assembly that vaccination should be made compulsory, and that the Attorney-General be instructed to bring in a bill to that effect. It has also been agreed that a searching inquiry should be instituted into all the circumstances connected with the recent outbreak of smallpox at Launceston under the presidency of a Judge of the Supreme Court.

MILITARY INTELLIGENCE.

NEW ZEALAND.

Surgeons-Captains E. J. O'Neill and A. R. Falconer, of the New Zealand Medical Staff, have passed the proficiency examination, prescribed by the War Office, and conducted by the officers of the Royal Army Medical Corps at headquarters, London. This entitles them to have the letter "P" after their names in the Army list. Both these officers served with distinction in South Africa. Three New Zealand officers have passed this examination, the third being Lieutenant-Colonel De Latour, M.D.

De Renzi, Surgeon-Captain Arthur Castriot, as Surgeon to the Permanent Force, Wellington.

Digitized by Google

PUBLIC HEALTH.

New South Wales.

Health of the Metropolis.—From the report of the Medical Officer of Health for the month of August, 1903, we learn that the deaths for the month, after distributing deaths of persons in hospitals to the districts in which they resided, numbered 476. The number is exactly equal to the average number of monthly deaths during the current year, and corresponds to an annual death rate of 11·31 per 1000 living. Among individual causes of death, cancer is again very prominent with 38 deaths, the monthly average for this disease being 29. Old age was registered as the cause of 23 deaths, a figure considerably above the monthly average. Phthisis and diarrhœal diseases caused 45 and 16 deaths respectively, these figures representing about the average number of deaths from these causes during August in the last five years. Respiratory diseases caused relatively very few deaths. Bronchitis was assigned as the cause of 25, and pneumonia of 32 deaths, the quinquennial average for the month of August from these diseases being 36 and 63 respectively. Probably the mildness of the winter and the infrequency of cold westerly winds experienced during August were the causes of the low mortality from these complaints. Death from notifiable infectious diseases were above the quinquennial average. Scarlet fever caused 5 deaths, diphtheria 9, and typhoid fever 5. The notified attacks from the same disease totalled 190 for scarlet fever, 53 for diphtheria, and 23 for typhoid fever. The decline in the monthly number of attacks of scarlet fever notified continues, and the epidemic is evidently on the wane. Infantile deaths during the month numbered 73, which is less than in any August for the past five years, and corresponds to an infantile mortality rate of 69 per 1000 births.

Cremation at Liverpool.—The Liverpool, N.S.W., local council, on 2nd September, expressed the desire to expedite the erection of a public crematorium for the cremation of bodies of the deceased inmates of the consumption and cancer wards of the Liverpool Asylum.

Septic Tank Treatment of Sewage.—Attention has been called to the unsatisfactory working of the septic tanks at the Folly Point output works in connection with the North Sydney sewerage scheme, and in respect to the septic tanks installed at the new North Shore Hospital. Dr. Stokes, the assistant medical officer of health for the metropolitan combined sanitary districts, has reported on the subject, and states that in his report of December of last year he ventured the opinion that the tanks and filter-beds might not be found to operate satisfactorily, and also that the channel into which the effluent would be discharged was not suitable for receiving such discharge, and that unless a high degree of purification of the effluent was attained a nuisance would most certainly arise. The hospital had since been occupied, and the installation had been in use for the past few months. Personal examination during the day time had revealed that there was a very offensive odour all around the immediate neighbourhood of the tanks, and there was no doubt that under favouring circumstances the odour would travel some distance. In order to ascertain the amount of purification that was taking place in the filter-bed, several samples of sewage were taken and submitted to analysis. The analyses showed that no purification at all was effected in the filter-bed, and that the effluent was practically identical in chemical composition with untreated sewage. The effluent from the filter-bed was received into a natural watercourse, so rough and clogged with weeds and rushes that it was under ordinary circumstances a stagnant bog, causing a nuisance which would be aggravated tenfold during the summer season. He recommended that the local authority should serve a notice, under section 65 of the Public Health Act, on the hospital authorities requiring an abatement of the nuisance. As regarded the works which would have to be carried out to attain those objects, in the first place the effluent should on no account be permitted to discharge in the present situation. The tanks and filter-bed should be modified so that all sewage matter passing through them would be discharged in a properly purified condition. The Willoughby Municipal Council have adopted the recommendations, and have taken the necessary proceedings to ensure an abatement of the nuisance.

Queensland.

The Bubonic Plague.—Dr. Ham, Health Officer of Brisbane, is inquiring into the case of plague that occurred aboard the steamer "Innamincka" whilst on a voyage between Brisbane and Townsville. The steamer left Sydney for Brisbane on August 29, and the case of plague developed on September 2. Dr. Ham expressed the opinion, seeing that the period of incubation varies from one to five days, that the disease was contracted in Sydney. Dr. Ashburton Thompson says, in connection with this case, that it must be remembered that the infection may have been already on board the steamer and may have been acquired by her either here or at any other port where plague rats have either recently been found, or, having been found some time ago, are believed to be now absent. With regard to plague rats on shore in Sydney, one was caught at a certain wharf in Darling Harbour on August 6, whilst a plague mouse was found at the same place on August 11. This wharf is between 200 and 300 yards from where the "Innamincka" berthed. There is, therefore, no doubt plague rats were in the neighbourhood of the vessel. Since the dates mentioned and as late as August 28, eight rats were caught at the two wharfs, but not one of the rodents were plague-infected.

HOSPITAL INTELLIGENCE.

The Women's Hospital, Sydney.—A meeting of the committee of the Women's Hospital was held last month. The decision of the committee to dissociate the hospital from the Benevolent Society, and to postpone the discussion of the basis of amalgamation until the new building is completed, was approved. In view of this, the administration of the hospital will be carried on as hitherto by the committee elected at the annual meeting of this institution. A statement showing the financial position of the hospital was placed before the meeting. The expediency of admitting to the institution nurses from general hospitals for a three months' course of obstetric training was discussed, and the matter was referred to the honorary medical staff.

Gundagai Hospital, N.S.W.—The Colonial Secretary's Department has informed the Gundagai Hospital Committee that before commencing the new hospital building it will be necessary to forward the plans and specifications to the Chief Secretary's office for approval, and that payment of the £1000 grant will only be made as the work proceeds, or on the certificate of the Government architect.

Western Suburbs Cottage Hospital, Sydney.—A new operating theatre and sterilising room at the

Digitized by Google

Western Suburbs Cottage Hospital have just been completed. They form a useful addition to the accessories of the hospital, and are of an up-to-date character. The walls and floor of the operating theatre are tiled, the lighting for surgical operations by day and night is perfect, and the necessary fittings are complete. The southern end of the room is of glass. Facilities for hot water supply have been placed in position, and the whole place made as practical and perfect as possible. The old operating theatre, after thorough disinfection and reconstruction, has been turned into a men's ward.

The Children's Hospital, Melbourne.—The thirty-fourth annual meeting of the Children's Hospital was held at the Town Hall, Melbourne, on August 24th. The report showed that the number of in-patients treated during the year was 1302. The attendances at the out-patient department were 77,895. The number of operations in the out-patient department for the year was 1677. The Princess May Pavilion, opened on May 8th, contained 40 additional beds, thus affording accommodation for 500 children during the year. In face of the financial troubles through which the State had passed, the committee felt they could not incur the risk of continuing the new ward for the present. The outlook for the coming year was a grave one. To maintain so great an institution meant that a larger income was necessary. With a decreased Government grant of £492, they appealed to the public for further support. The expenditure for the last twelve months had totalled £8462, and the receipts came to £7642, including £2232 from voluntary contributions. There was thus a deficiency for the year of £820. They still had in reserve £9000 on fixed deposits, and £5624 in Government stock. It was decided that the name of the institution should be changed from that of the Melbourne Free Hospital for Sick Children to the Children's Hospital.

St. Vincent's Hospital, Melbourne.—At the ninth annual meeting of the subscribers of the St. Vincent's Hospital, held at the Town Hall, the report showed that the number of patients who had received medical and surgical aid during the 12 months was 7879. Of that total 439 had been treated as indoor patients, and of these 402 had been discharged cured or relieved. The number of out-patients was 7440, and to the greater number of these medicine had been supplied free of cost. The number of attendances at the out-patient department was 23,108. The total receipts for the year were set down at £3086 15s 5d, and the total expenditure at £2921 5s 9d. The year closed with an overdraft of £533 0s 5d, which was £159 9s 8d less than the preceding year. A steady increase in the number of annual subscribers was noticeable, the amount received from that source being £733 16s 6d, as against £460 12s 6d in the corresponding period of last year. The satisfactory financial result of the hospital ball, the net proceeds of which were £310, was a cause for hearty congratulation The medical report showed that 498 operations were performed during the year, with a mortality of only 1·6 per cent. In the departments for special surgery 223 operations had been performed, with a mortality of 0 per cent. The chairman, in referring to the question of the erection of a new hospital, said that some £15,000 had been contributed towards that object by the public. The first section of the work, viz., the foundations, had been carried out at a cost of something like £4000, leaving some £11,000 in hand towards the erection of the superstructure. A few weeks back tenders were invited for the construction of this part of the building, but the lowest was about £28,000. It had not been deemed expedient to enter into a contract in the circumstances. He only referred to the matter to show the absolute necessity for the augmentation of the funds in hand in order that the completion of the erection of the hospital might be brought about as speedily as possible.

The Women's Hospital, Melbourne.—The forty-sixth anuual meeting of contributors to the Women's Hospital was held in the Melbourne Town Hall last month. The report stated that during the last year 442 patients received treatment in the infirmary department, and 1489 in the midwifery department; 1105 infants were born in the hospital. The out-patients' department showed a slight falling off, there being 1043 new patients, as against 1050 in the previous year. The necessity for extra accommodation had been apparent for several years past, some patients having been awaiting admission for many months. There was still the burden of an overdraft, notwithstanding that the annual expenditure had been reduced to about £380. The total income for maintenance was £7920, including the sum of £1000 transferred from the reserve fund. The debt on the building fund had increased to £521. Funds were being collected for the enlargement of the cottage for the maintenance of septicæmia cases, the consent of the Board of Health having been obtained to extensions to cost £497. Mr. Jardine, in moving the adoption of the report, said that on the whole the past year had been a prosperous one. The small number of women who contributed to the hospital was a matter that must arrest attention. Out of 264,000 women in the metropolis only 474 subscribed, or one in every 560, whilst the contributions represented only one farthing for each woman in the community. He was sorry they had to refuse admission to hundreds of suffering women on account of the limited accommodation.

Prince Alfred Hospital, Sydney.—Improvements have been introduced at this hospital during the past 12 months. The vote of £6000 passed by Parliament in 1900 for the carrying out of additions and alterations to existing buildings has been expended chiefly in making extensive improvements to the administration block, and to other portions of the hospital in a less degree. In the administration block accommodation has been provided for extra residential medical officers. To arrange for this, the hospital chapel has been removed to a separate building in the grounds. An extra story has been added to the rooms which originally formed the chapel. The whole of the basement is in future to be devoted to the out-patient department. New consulting-rooms have been provided, and the waiting-room for out-patients is commodious. When the new pavilions are complete, and the dispensary and laboratory have been removed, there will be available 12 consulting-rooms and two dark-rooms, which will provide just double the existing accommodation. In other parts of the ground various alterations and additions have been made.

The Austin Hospital for Incurables, Melbourne—The following is a comparative statement of the consumptive cases admitted to this hospital for the last two years ended June 30th, 1902, and June 30th, 1903, which will be of interest:—

	1903.	1902.
Patients in residence, July 1st	35	45
Admitted during year	44	72
Total	79	117
Died	23	58
Discharged relieved	16	13

This gives a death-rate for 1902-1903 (the year in which the open-air treatment was in full operation) of only 29·1 per cent., while for 1901-1902 it was no less than 54 per cent., the heavy fall being attributable in great part to the new methods.

Digitized by Google

The Queen's Home, Adelaide.—At the last monthly meeting of the general committee it was reported that the medical board had complained that patients were sometimes admitted to the home who could well afford to pay for medical attendance. They suggested that the eligible limit of income be reduced from 50s a week to 40s a week. It was resolved to reply to the board stating that, while cases had inadvertently occurred where patients were admitted who were afterwards found to be in a position to pay for medical attendance, the committee proposed to exercise special care in future to prevent this, and a form would be prepared which would provide the committee with more definite information than was given by the one now in use.

St. Margaret's Convalescent Hospital, S.A.—At the twenty-eighth annual meeting of the St. Margaret's Convalescent Hospital, Semaphore, the Chairman (His Excellency the Governor, Sir George Le Hunte, K.C.M.G.) said that the institution needed support, and he called attention to the plaint of the committee that the income for the year had declined by £191. Though the outlay had been reduced by £107, there was still a deficiency of £83 to be made good out of capital. It was a serious thing to trench upon capital to pay current expenses, and a step that should be at once redressed when better times arrived. The report and balance-sheet were adopted. The record stated that 814 patients had been cared for during the year, 32 of whom were children under 12 years. The average stay of patients had been 11½ days. The Convalescent Hospital had a list of only 200 subscribers, and the total subscriptions for the last year had been £310.

Medico-Ethical and Medico-Legal.

A correspondent writes:—"Will you please let me know through your columns what would be a fair fee for a midwifery case in which it was necessary to do embryotomy in order to extract. I was not engaged to attend the patient, though I presume that has no bearing on the matter. Please mention a minimum and a maximum fee."

*** The usual rule is that a doctor who undertakes a midwifery case carries out all procedures necessary for the fee agreed upon. If, however, he is called in to a difficult case necessitating a difficult operation such as embryotomy it would be legitimate to charge a fee of from 10 to 20 guineas, according to the circumstances of the patient.

The Transmission of Tuberculosis.—Further interesting experiments have been carried out by the German health authorities to test Professor Koch's theory that animal tuberculosis cannot be transmitted to man. A number of cattle were inoculated with the bacilli of animal tuberculosis and others with those of human tuberculosis. The result obtained was that in the former case acute tuberculosis was engendered, and in the latter case it was not. Animals treated, however, with a subcutaneous injection of the bacilli taken from persons suffering from intestinal tuberculosis developed the disease; but as this form of it is extremely rare, Professor Kossel arrived at the opinion that the experiment proved that Professor Koch was justified in the view he expressed at the congress held some time ago in London. Professor Orth, with whom the majority of the Berlin Medical Society agree, maintains that Koch is quite wrong, at least in his assumption that human tuberculosis cannot be transmitted to cattle. He believes that animal tuberculosis can be transmitted to man, but admits that the evidence on this point is less clear.

MEDICAL NOTES.

Child Study Association.—At the last monthly meeting of the Child Study Association in Sydney, a lecture was delivered by Dr. Clubbe on the "Duty of the State and the Individual in Reference to Infant Mortality." In the course of his address Dr. Clubbe said that in this State alone over 4000 deaths occur annually among infants under one year of age. The cause was preventable, being in most cases the result of ignorance in feeding. He advocated the thorough training of girls in physiology and infant hygiene. The president also delivered an address urging all to work earnestly for the benefits that would result from a faithful and practical study of the children and their efficient training. A vote of thanks was accorded the lecturer.

At a meeting of the Perth Hospital Board, a protest was received from the honorary medical staff against the appointment of the lady doctor, Miss Ambrose, from Adelaide, to a position on the house staff. The board declined to entertain the protest.

Charitable Bequests.—Under the will of Mrs. Mary Jane Syme, of the Semaphore, Adelaide, the estate being set down at £11,000, bequests of £50 each are made to the Royal Institution for the Blind, North Adelaide, the Cottage Homes, Incorporated, and the Home for Incurables, to be paid free of succession duty. She has also intimated her intention of having built an infectious diseases hospital in connection with the Stawell Hospital and Benevolent Asylum. The Melbourne Hospital will receive about £2000 under the will of the late John Byrne, of Heyfield. The Gippsland and Bairnsdale hospitals will each receive £500. Mrs. Alexander Raff donated £100 to the Lady Bowen Hospital, Brisbane. Miss Nellie Stewart has endowed a cot, to be called the "Sweet Nell Cot," at the Children's Hospital, Melbourne, and has forwarded a cheque for £30 for this object

Melbourne District Nursing Society.—Lady Janet Clarke, president of the Melbourne District Nursing Society, appeals for assistance on behalf of the above society. The nurses paid 18,479 visits during the past year to patients in their own homes. In appealing to the public the president states: "The money collected will go directly to help the suffering and patient poor of the city."

All-Metal Hypodermatic Syringe, Sterilizable.—Messrs. Parke, Davis & Co., of Detroit and Sydney, have lately introduced the above, which consists of three pieces of metal—no glass, no leather, no complexity. It will last for years, even though in constant use. The plunger is made of solid metal. It accurately fits the barrel, yet moves readily and without sticking. The end of the barrel is open to permit the dropping in of the tablet. The needle butt is accurately ground, and fits the barrel perfectly; it is readily detached by a simple device. The piston rod is graduated in minims. The advantages claimed for it are—(*a*) It is capable of thorough sterilization by boiling; (*b*) it is very durable; (*c*) it is extremely convenient to use.

"Ermelo" Nursing Home, Newtown.—Miss Gould and Sister Johnston, who have been carrying on the above-named institution since their return from South Africa, as a home for convalescents and chronic invalids, have now decided to take in medical, midwifery and minor surgical cases as well. The house is surrounded by charming grounds.

Digitized by Google

The Ill-effect of Boric Acid.—During evidence in the Melbourne County Court on a question as to whether boric acid was likely to injure health when used as a preservative, Dr. L. Henry said he had treated three men and three women and three children with a course of boric acid under the usual precautions, administering to children 3 to 5 grains, and to adults from 10 to 15 grains. He found at the end of three weeks that they had all lost weight, and showed symptoms of general ill-health.

New South Wales Lodge Practitioners' Defence Fund.—The hon. treasurer (Dr. Crago) acknowledges with thanks the receipt of subscriptions of 21s each from the following members:—Drs. J. MacMaster, E. C. Hall, Capper, Pirie, Ramsay Sharp, O'Gorman Hughes and MacCormick. Amount received to date, £12 5 6s 6d. Members who have not yet sent in their promised subscriptions are requested to do so.

The Ramsay Smith Case.—Dr. Ramsay Smith, the Coroner for Adelaide and President of the Adelaide Central Board of Health, has been suspended from duty by the Government. In response to his request, a Board has been investigating the charges made against him and has not yet given its decision. It is a matter of regret that the newspapers have been allowed to publish details of the evidence, which can only be properly understood and appreciated by medical men.

The Adelaide Hospital Rules.—At a meeting of the Adelaide Hospital Board held recently a discussion took place on the charges made by the Coroner and juries at recent inquests concerning the non-observance of certain rules framed for the conduct of the hospital, particularly the one requiring consultations of the senior staff before operations are performed. The Medical Superintendent admitted that the rule in question had been abandoned because of the impossibility of its application, and that if some of the other regulations were to be followed it would be impossible to work the hospital for an hour. It was admitted that the rules of the hospital were out of date, and a committee was appointed to revise the rules and submit a draft to the board.

Erratum.—In our last issue, by a printer's error, three lines were omitted from Dr. Fiaschi's paper, at the top of page 346. It should have read as follows:—"This was removed after a fortnight, and massage with gradual active and passive motion begun."

PERSONAL ITEMS.

Dr. C. F. Hodgkinson has left North Mount Lyell, Tasmania, for Berringa, Victoria.

Dr. E. H. Morgan has succeeded to the practice of the late Dr. T. Stewart, of Hamilton, Tasmania, who died suddenly on August 20th.

The officials of the Hobart Corporation met lately for the purpose of making a small presentation to Dr. Gregory Sprott as an expression of their esteem and good wishes on relinquishing his position as medical officer of health of the city.

At the first meeting of the newly elected council, Dr. W. H. Shortt was unanimously elected Mayor of Corowa, N.S.W.

Dr. Ludwig Bernstein, M.D. (Heidelb.), of Lismore, N.S.W., celebrated his 65th birthday recently, and received many congratulations. The doctor, who intends returning to his native land at the end of the year, has been a resident of Lismore for about a quarter of a century. He has been mayor and alderman on many occasions.

Dr. E. A. Marsden was entertained at the Commercial Hotel, Liverpool, N.S.W., on August 27th, prior to his departure for Dungog.

Dr. Albert Edelmann, of Brisbane (Q.), but formerly of the Mahratta Plague Hospital, Bombay, recently visited Sydney in connection with his discovery for the manufacture of artificial fuel. Dr. Edelmann claims that he is now able to produce fuel by artificial means which gives intense heat, and a large amount of gas, with little or no smoke.

Drs. Elliott and E. H. Gibbs were recently presented by the members of St. John's Ambulance Association, Wellington, N.Z., with a silver and oak inkstand, and a suitably inscribed smoker's bowl respectively.

Dr. Martin, who left New Zealand a short time ago for Japan, for the sake of his health, has completely recovered.

Dr. Sanders, of Wanganui, N.Z., returned recently from a three months' trip to China and Japan.

Dr. Wallace Mackenzie, who has been visiting the hospitals of London and the Continent, has returned to his practice in Wellington.

Miss Bessie Gunn, of Timaru, N.Z., has secured her diplomas in medicine and surgery at Edinburgh University.

Dr. Bernan, of Napier, N.Z., is suffering from blood-poisoning. Dr. Izard, of Wellington, has taken up Dr. Bernan's practice during the latter's illness.

Dr. Gordon Macdonald has suggested to the Dunedin (N.Z.) Hospital trustees that a brass tablet should be placed in the hospital as a tribute to the services rendered by the late Dr. Brown.

Dr. W. Sproule has disposed of his practice at Wyalong to Dr. Caspersonn, of West Wyalong.

Dr. J. A. Neptune Scott, of Wycheproof, Victoria, has received information that his sister, Miss M. H. Scott, has graduated as Bachelor of Medicine and Surgery at the University of Glasgow. During her course of study Miss Scott took honours in several subjects.

Dr. George R. Parkins, who is travelling in connection with the Rhodes Scholarships' Trust, has arrived in New Zealand.

The members of the Wallaby Club entertained Dr. L. Henry at dinner at Kemp's Hotel, Brighton Beach, Melbourne, on August 29th, on the conclusion of a largely attended walk. The members presented to Dr. Henry a case containing a silver cigar-case, cigarette-case, matchbox and cigar-holder, suitably engraved, in token of their appreciation of his work as hon. secretary since its formation in 1894.

Dr. Hardcastle, of Hillgrove, New South Wales, has been elected a member of the Incorporated Society of Arts, London.

The resignation of Dr. Thomas Evans as senior honorary ophthalmic surgeon at the Sydney Hospital was received on September 1st. It was accepted with regret, and it was decided to appoint Dr. Evans honorary consulting ophthalmic surgeon.

Digitized by Google

Dr. W. F. Healey has resigned his appointment as health officer at Mertondale, Western Australia.

Dr. W. Harvey has resigned his appointment as health officer at Wagin, Western Australia.

Dr. Chisholm Ross, who has retired from the position of medical superintendent of Callan Park Hospital for the Insane, Sydney, to take up private practice, was entertained at a farewell gathering. Dr. McDouall (acting medical superintendent) occupied the chair. Addresses eulogistic of the services rendered by Dr. Ross during his 20 years' connection with the Lunacy Department were delivered by the chairman and others. Dr. Ross was the recipient of several presentations, including a set of consulting-room instruments, an album of views of the hospital at Callan Park, a gold ring, and an illuminated address signed by 174 members of the staffs of the different hospitals for insane in the State.

Dr. T. W. Corbin, the senior medical practitioner of Adelaide, S.A., celebrated his diamond jubilee on Monday, August 10th. He was born at Derby. In 1865 he landed in the State, and proceeded to the Burra. The following year he was appointed Assistant Colonial Surgeon and House Surgeon to the Adelaide Hospital. In 1868 he went to live at Riverton, where he practised until 1872, and the next year he removed to the city, and has since resided at King William-street, Adelaide.

Dr. R. W. H. Maffey has removed from Newcastle to Singleton, N.S.W.

Dr. J. G. Sheahan, who had been nominated for one of the positions on the staff of the Women's Hospital, Melbourne, has withdrawn his nomination.

Dr. T. Storie Dixson left Sydney by the American mail steamer "Ventura," on September 7th, for a six months' trip to America and Europe.

Dr. C. T. Cooper has started practice on Kensington-road, Norwood, Adelaide.

Dr. F. S. Hone has left Maclaren Vale, S.A., where he has practised for seven years, and in future will practice at the Semaphore, S.A., *vice* Dr. Drummond, who is leaving for England.

Dr. Clive Newland has arrived in Adelaide after a short visit to London. He has taken Dr. Hone's practice at Maclaren Vale, S.A.

Dr. Morgan is taking a holiday on his brother's station in Queensland.

Dr. H. Douglas Stephens, who has been associated with the Children's Hospital, Melbourne, as senior resident medical officer for the past two years, is severing his connection with that institution to enter upon private practice. Upon his resignation the committee of the hospital passed a resolution expressing regret at his resignation, and tendering him best thanks for his past services.

PROCEEDINGS OF AUSTRALASIAN MEDICAL BOARDS.

NEW SOUTH WALES.

Baldwin, Mary, M.B. (Melb.), 1902; B.S. (Melb.), 1903.
Drew, Thomas Mitchell, M.B., B.S. (Melb.), 1901.
Dolman, Edgar Winn Fox, M.R.C.S. (Eng.), 1901; R.C.P. (Lond.), 1901.
Harris, J. J., M.B., Ch.B. (Aberd.), 1903.
Pinchin, Joseph Leonard, L.R.C.P. (Edin.), 1895; L.R.C.S. (Edin.), 1895; L.F.P.S. (Glasg.), 1895.
Welsh, David Arthur, M.B., C.M. (Edin.), 1893; M.D. (Edin.), 1897.

WEST AUSTRALIA.

Benham, Rosamond Agnes, M.B., B.S. (Adel.), 1902.
Griffith, James DeBurgh, M.B. (Univ. Dubl.), 1874; Ch.M. (Univ. Dubl.), 1875; M.D. (Univ. Dubl.), 1886.
Macqueen, Archibald John, L.R.C.P. (Edin.), 1871; F.R.C.S. (Edin.), 1878.
Morrison, Alexander, L.R.C.P. (Edin.), 1876; L.R.C.S. (Edin.), 1876.

QUEENSLAND.

Blaney, Henry Patrick, M.B. (Univ. Syd.), 1903.
Browne, Arthur Edward Newbury, L.R.C.P. & S. (Edin.), 1884.
Campbell, Alfred, F.R.C.S. (Edin.), 1900; M.R.C.S. (Eng.), 1897; L.R.C.P. (Lond.), 1897.
Fitzpatrick, Edward Bede Lucien, M.B. (Univ. Syd.), 1903.
Rome, John Arthur Denzil, L.R.C.P.S. (Edin.), 1903; L.F.P.S. (Glasg.), 1903.
Rygate, Charles Daniel Hartley, M.R.C.S. (Eng.), 1889; L.R.C.P. (Lond.), 1889; D.P.H.R.C.P.S. (Irel.), 1902.
Shaw, Helen, M.B., B.S. (Univ. Melb.), 1901.
Watson, James Frederick, M.B., M.Ch. (Univ. Syd.), 1903.

TASMANIA.

Broughton, W. B., L.R.C.S. (Edin.), 1877; L.S.A. (Lond.), 1878.
Bonnin, F. J., M.B. (Melb.), 1903; Ch.B. (Melb.), 1901; M.D. (Melb.), 1903.

MEDICAL APPOINTMENTS.

NEW SOUTH WALES.

Fairfax, E. W., M.B., Ch.M. (Syd.), M.R.C.S. (Eng.), to be Hon. Anæsthetist, University Dental Hospital, Sydney.
Hood, A. Jarvie, M.B., C.M. (Glasg.), to be Hon. Official Visitor to the Hospital for the Insane, Sydney.
MacLaurin, Chas., M.B., C.M. (Edin.), to be Hon. Consulting Surgeon, University Dental Hospital, Sydney.
Ross, Chisholm, M.B., C.M. (Edin.), M.D. (Syd.), to be a Member of the Medical Board of New South Wales.
Stokes, Edward, M.B., Ch.M., to be Lecturer on Infectious Diseases, Disinfection and Sanitary Law at the Sydney Technical College.

VICTORIA.

Re-elected Hon. Medical Officers to the Women's Hospital:—
Adam, G. R., M.B., Ch.M. (Edin.).
Meyer, Felix, M.B., Ch.B. (Melb.).
Morton, F. W. W., L.L.M.R.C.P. (Edin.).
O'Sullivan, M. U., L.R.C.P. (Edin.).

Out-patients' Department:
Cuscaden, G., L.L.M.R.C.P. (Edin.).
Fetherston, R. W., L.K.A.C.P., M.D.
Horne, G., M.B., Ch.B. (Melb.).
Sexton, Helen, M.B., Ch.B. (Melb.).

SOUTH AUSTRALIA.

The following to be Public Vaccinators for the districts set opposite their names:—
Kerr, David, M.B., C.M., of Angaston.
Kilpatrick, William, M.B., B.S., of Hawker.

To be Medical Officers to Destitute Persons and Aborigines within the South Australian districts following their names:—
Aitken, W. B., M.B., Ch.M., Caltowie.
Feige, A., M.D. (Dresden), Neales.
Gibson, Thos., M.B., Ch.M. (Edin.), Quorn Corporation.
Glynn, E. McM., M.B., Ch.M. (Aberd.), Gilbert and Kapunda.
Gunning, —, L.R.C.S., L.M., Narracoorte.
Juttner, F. J. E., M.B., Ch.M. (Edin.), Nurcootpa and Tanunda.
Souter, J. F., M.B., Ch.M., Crafers.
Stevenson, J. R., M.B., Ch.M. (Edin.), Petersburg.
Yeatman, J. W., M.R.C.S., Hall.

QUEENSLAND.

Bourne, Eleanor E., M.B., Ch.M. (Syd.), to be Resident Medical Officer of the Brisbane General Hospital, *vice* Dr. Fearnley, resigned.
Devitt, Richard Edmond, M.B., B.S., to be Medical Officer at Ravenswood, *vice* D. P. O'Brien, F.R.C.S. (Irel.), resigned.
Ham, Bertie Burnett, M.D. (Brussels), Commissioner of Public Health, to be Acting Health Officer for the Port of Brisbane during the absence of the Health Officer.

Digitized by Google

WEST AUSTRALIA.

Shackell, Dr. Percy, to be Officer of Health at Malcolm, W.A.
Wilson, Dr. Thomas, to be Officer of Health at Ravensthorpe, W.A.

TASMANIA.

Brown, Dr. J. T., Adelaide, to be *locum tenens* at the General Hospital, Launceston, Tasmania, for Dr. Barnard, the House Surgeon.
Clarke, Arthur Hopkins, M.R.C.S., L.R.C.P., to be Government Medical Officer for all departments, Hobart.
Giblin, Dr. W. W., to be Assistant Hon. Medical Officer, Hobart Hospital.
Willmot, Robert, F.R.C.S., to be Acting Medical Officer of Health for the City of Hobart, *vice* Dr. Gregory Sprott, M.D., resigned.

The following to be Public Vaccinators for the districts set opposite their names:—

Benjafield, H., M.B., C.M. (Edin.), Hobart.
Broughton, W.B., L.M.R.C.S. (Edin.), Strahan.
Crowther, A. B., L.R.C.P., Brighton, Clarence, Green Ponds and Kingston.
Deane, C., M.D. (Edin.), Port Frederick and Port Sorell.
Ireland, E. W. J., M.B., Ch M. (Edin.), Brighton, Green Ponds and Richmond.
Sprott, Gregory, M.B., Ch.M., D.P.H. (Glasg.), Brighton, Green Ponds, Kempton and Bellerive.
Webster, G. A., M.R.C.S., M.B., Tasman's Peninsula.

NEW ZEALAND.

De Lisle, Frederick Irving, D.P.H., L.R.C.P. (Edin.), L.S.A. (Lond.), to be a District Health Officer, Wellington.
Thomas, Charles Ernest, M.R.C.S. (Eng.), L.S.A. (Lond.), to be a Port Health Officer for the Port of Timaru, *vice* Dr. Reid, resigned.

The following to be Public Vaccinators for the District set opposite their names:—

Browne, J. Walter, M.B., B.Ch. (Dubl.), Hokianga.
Green, Joseph, M.R.C.S. (Eng.), L.R.C.P. (Lond.), Winton, *vice* Dr. Riley, resigned.
Heard, Charles De Wolfe, M.D. (McGill Univ., U S.A.), L.R.C.P. (Edin.), L.R.C.S. (Edin.), Pleasant Point, *vice* Dr. Thomas, deceased.
Johnston, David Gibb, M.B., M.S. (Glasg.), Carterton.
MacLoughlin, Thomas James, L.R.C.S., L.R.C.P. (Edin.), Rotorua.
Watson, Isabel, L.R.C.P., L.R.C.S. (Edin.), Wellington.

BIRTHS, MARRIAGES AND DEATHS.

BIRTHS.

LENDON.—On August 11th, at North Terrace, Adelaide, the wife of A. A. Lenaon, M.D.—a son.

RIGBY.—On August 1st, at her residence, Piper-street, Kyneton, Victoria, the wife of G. O. Rigby, M.B., M.R.C.S.—a son.

WILSON.—September 7, at Millthorpe, N.S.W., the wife of J. H. Wilson, L.R.C.P. and S., of a son.

MARRIAGES.

HUMPHERY—JUCHAU.—On August 12th, at Warren, Esca Morris Humphery, M.B., Ch.M., son of Hon. F. T. Humphery, M.L.C., to Florence Mary, daughter of James Juchau, of Surat, Queensland.

LE QUESNE—MAFFEY.—On July 30th, 1903, at St. Stephen's, Mowbray-road, Chatswood, Sydney, George, son of the late Philip Le Quesne, Esq., to Winifred, daughter of John Maffey, Esq., L.R.C.P., L.R.C.S.E.

MORGAN—PEARSON.—On August 22nd, at Christ Church, Gladesville, Sydney, Edward Hume Morgan, M.R.C.S.E., son of the late Allen Bradley Morgan, L.R.C.P., of Bowral, to Emily Mary, daughter of the late Robert Mead Pearson, of The Cedars, Gladesville.

PARKINSON—STUART.—On June 3rd, at All Saints' Church, Kenley, Surrey, England, Thomas S. P. Parkinson, M.B., B.S., son of the late Dr. John Taylor Parkinson, of Crystal Brook, South Australia, to Esther Molyneux Stuart, daughter of the late Milton Stuart, of Woodland House, Seaforth, Liverpool.

DEATHS.

BERNAYS.—On July 4th, 1903, at St. Thomas' Hospital, London, Sidney Adolphus Bernays, M.R.C.S., L.S.A. (formerly of Melbourne), aged 50.

EVANS.—On August 22nd, at Auckland, N.Z., Lawford David Evans, M.R.C.S. (Eng.), aged 54 years.

MOORE.—On September 6th, at private hospital, East Melbourne, Henry Ogle Moore, B.A., M.B., Trinity College, Dublin, late of Dandenong.

PICKBURN.—On August 18th, 1903, at 22 College-street, Hyde Park, Sydney, Thomas James Pickburn, M.D., aged 57 years.

PRIOR.—On August 17th, at his late residence, No. 12 Ovens-street, Yarraville, Victoria, Dr. Michael Prior, aged 78 years.

WHITAKER.—On September 4th, at his residence, Victoria-street, North Melbourne, Joseph Whitaker, M.D., R.N., aged 64 years.

BOOKS RECEIVED.

A Pharmacopœia on Diseases of the Skin, containing concise formulæ for baths, mixtures, ointments, lotions, caustics, rules of diet, classification and therapeutical index. Edited by James Startin, Senior Surgeon to the London Skin Hospital, Fitzroy Square. Fifth edition. Price, 2s 6d. Bristol: John Wright & Co. London: Simpkin & Co., Ltd. 1903.

The American Year Book of Medicine and Surgery. Edited by G. M. Gould, M.D. Medicine and Surgery. Philadelphia, New York and London: W. B. Saunders & Co. Melbourne: Jas. Little 1903. Price, 31s.

Saunders' Medical Hand Atlases. Atlas and Epitome of Human Histology and Microscopic Anatomy. By Privat-docent Dr. J. Sobotta, of Wurzburg. Edited by G. Carl Huber, M.D., Junior Prof. of Anatomy and Histology, University of Michigan. Philadelphia: W. B. Saunders and Co. Melbourne: Jas. Little. 1903. Price, 22s 6d.

Saunders' Medical Hand Atlases. Atlas and Epitome of Diseases of the Mouth, Pharynx and Nose. By Dr. L. Grunwald. From the German. Edited by J. E. Newcomb, M.D., Instructor in Laryngology, Cornell University. Philadelphia: W. B. Saunders & Co. Melbourne: Jas. Little. 1903. Price, 15s.

Diseases of the Stomach. By Dr. F. Riegel, of Giessen. Edited by C. G. Stockton, M.D., Prof. of Medicine, University of Buffalo. Philadelphia: W. B. Saunders & Co. Melbourne: Jas Little. 1903. Price, 25s.

Diseases of the Pancreas, Suprarenal Capsules and Liver. By Dr. L. Oser, of Vienna, Dr. E. Neusser, Drs. H. Quincke and G. Hoppe-Seyler. Edited by F. A. Packard, M.D., and R. H. Fitz, M.D. Philadelphia: W. B. Saunders & Co. Melbourne: Jas Little. 1903. Price, 25s.

Squint: its Causes, Pathology and Treatment. By Claud Worth, F.R.C.S. London: John Bale, Sons & Danielsson, Ltd. 1903. Price, 6s net.

The Welcome Physiological Research Laboratories, founded 1894. Walter Dowson, M.D., Director, Herne Hill, London, S.E.

LETTERS AND OTHER COMMUNICATIONS HAVE BEEN RECEIVED FROM:—

Drs. Fullerton, Murrurundi; A. E. Randell, Perth, W.A.; A. B. Brockway, Brisbane; W. F. Taylor, Brisbane; D. A. Gresswell, Melbourne; J. B. Hogg, Brisbane; Eric Sinclair, Sydney; W. S. Byrne, Brisbane; Louis Henry, Melbourne; F. E. Hare, Brisbane; — Stokes, Sydney; J. E. Fergusson Stewart, Midland Junction, W.A.; C. Reissmann, Adelaide; H. C. Hinder, Ashfield; Office of the Commissioner of Public Health, Brisbane; W. B. Vance, Melbourne; Geo. Cuscaden, Melbourne; A. S. Joske, Melbourne; F. Tidswell, Sydney; Anstey Giles, Adelaide; Mr. G. J. Taylor, Hobart; Drs. A. H. Gault, Adelaide; J. Adam Dick, Randwick; G. H. Hogg, Launceston, Tasmania; F. J. T. Sawkins, Sydney; Simpson Newland, Adelaide; W. G. Armstrong, Sydney; R. E. Newton, Perth, W.A.; J. B. Gunson, Adelaide.

HUDSON'S "EUMENTHOL" JUJUBES (Registered) are a Gum Jujube containing the active constituents of well-known Antiseptics, Eucalyptol, Thymus Vulg., Pinus Sylvestris, Mentha Arv., with Benzo-Borate of Sodium, etc., and exhibit the antiseptic properties in a fragrant and efficient form. Sold by all chemists; tins, 1s 6d. Are Antiseptic, Prophylactic, reduce Sensibility of Mucous Membrane. Mr. W. A. Dixon, F.I.C., F.C.S., Public Analyst of Sydney, after making exhaustive tests, says:—"There is no doubt but that 'Eumenthol' Jujubes have a wonderful effect in the destruction of bacteria and preventing their growth. . . . I have made a comparative test of 'Eumenthol' Essence and Creosote, and find that there is little difference in their bactericidal action."

Digitized by Google

MECHANISM OF THE PAROXYSMAL NEUROSES.

By Francis Hare, M.D., Consulting Physician, Brisbane General Hospital, Inspector of Hospitals, Queensland.

THE PATHOLOGICAL AND PHYSIOLOGICAL RELATIONSHIPS OF THE PAROXYSMAL NEUROSES.

THE close relationship between the different members of the class of paroxysmal neuroses has long been recognised by physicians who take a wide, comprehensive, and philosophic view of pathology. This is apparent in the names which have at various times been bestowed upon these disorders. Epilepsy, perhaps the most striking and distressing member of the group, has usually served as the standard of comparison. Thus, laryngismus stridulus has been termed "laryngeal epilepsy" (Liveing); asthma, "epilepsy of the lungs"; migraine, "sensory epilepsy"; angina pectoris and tic doloureux, "epileptiform neuralgia" (Trousseau). But I have heard angina spoken of as "asthma of the heart," and Lauder Brunton has referred to gastralgia as "headache in the stomach." Quite recently Goodhart[1] compares together paroxysmal sneezing, asthma, and Raynaud's disease. He says: "All three are probably due to allied causes, and although in all three the results are of different order . . . yet the clinical history in all of these is not unlike." As pointed out in the first of this series of papers, the demonstration of the inter-relations of the paroxysmal neuroses rests upon the numerous observations that any one of these recurrent affections may be replaced by any other for shorter or longer periods, or permanently. This mutual replacement is fully explicable on the vaso-motor and cardio-inhibitory hypotheses considered, but not, so far as I can see, on any other.

Extensive vaso-constriction seems common to practically all cases of migraine, asthma, angina pectoris, and epilepsy. This vaso-constriction must cause a rise in the general blood pressure unless compensated in some way. Such compensation may be by an area of vaso-dilation or by a modification of the heartbeat. Compensatory vaso-dilation may vary widely in localisation, extent, intensity, rapidity of development and subsidence, and duration. Cardiac compensation may consist of slowing, weakening, intermittence or stoppage of the heartbeats. And the phenomena characteristic of the different paroxysmal neuroses will depend in the main upon the nature of the compensation for the vaso-constriction which is common to all, whether this compensation be by vaso-dilation, by cardiac modification, or by both.

This generalisation enables us to depict mentally the variations of mechanism which determine the replacement of any of these neuroses by any other—of the occurrences termed by Liveing neurosal transformations or metamorphoses. In the case of a transformation of migraine into asthma or angina pectoris, or conversely, the only vascular modification required would be a shifting of the area of vaso-dilation, and this might conceivably occur under the influence of many intervening factors.

In the case of a transformation of any of the above three paroxysmal disorders into epilepsy, we might assume that for some reason the compensatory vaso-dilation failed, or was insufficiently extensive or rapid, perhaps on account of the rapidity of development of vaso-constriction, and that consequently the general blood pressure continued to rise until checked by a cardiac inhibition of sufficient intensity and duration to cause general convulsions through cerebral anæmia; or, if we accept the hypothesis of spasm of the cerebral arteries, we might regard this spasm as a part detached, perhaps intensified, of the extensive vaso-constriction. Conversely, long recurrent epileptic attacks have been replaced by neurosal attacks of various kinds, and then we may assume the reverse series of vascular modifications. Gowers[2] refers to a case in which an epileptic began to suffer from migraine when his fits ceased. And Salter says[3] of an old standing case of periodic epilepsy: "On one occasion . . . at the usual time at which he had expected the fit, he had experienced the accustomed premonitory symptoms, but instead of their being followed as usual by the convulsions, this violent dyspnœa"—typical asthma—"had come on. Within a few hours the dyspnœa went off, and left him as well as usual. At the expiration of the accustomed interval after this attack, the ordinary premonitory symptoms and the usual epileptic fit occurred. On several occasions . . . this was repeated, the epileptic seizure being, as it were, supplanted by the asthmatic." Clearly in both varieties of attacks the premonitory symptoms, or aurœ, were synchronous with, and caused by, the initial extensive vaso-constriction. The asthmatic attacks were determined by a compensatory vaso-dilation of the bronchial area—the epileptic attacks by the absence of compensatory vaso-dilation, and by substitutive cardiac

Digitized by Google

inhibition. Thus, it would be absolutely correct to say of the above case that the bronchial vaso-dilation which determined the asthmatic, prevented the epileptic, fit.

But there is no special virtue in the bronchial area: a vaso-dilation in any area, provided it were adequately sudden and extensive, would doubtless be capable of anticipating or aborting an impending epileptic fit. Gowers says[4]: "The phenomena which attend the sudden termination of threatened attacks are sometimes peculiar and instructive. In one case a cold and shaky feeling in the legs passed up the back to the head, which felt as if it would burst. When this sensation became intense there was a sudden flow of saliva, and a watery discharge from the nostrils. Then there was a copious flow of tears for a few seconds, and the sense of fulness in the head suddenly ceased, and also the secretion from the mouth and nose."

These vaso-motor and cardio-inhibitory hypotheses enable us to understand also the mechanism of those interesting and not very uncommon cases which apparently partake of the clinical characteristics of two (or even more) of the classical paroxysmal neuroses—cases in which seem to be mingled in various proportions the symptoms (1) of migraine and asthma, (2) of migraine and angina, (3) of migraine and epilepsy, (4) of asthma and angina, (5) of asthma and epilepsy, (6) of angina and epilepsy, and of any of these with other neurosal disorders.

Some examples of such composite cases may be given:—

1. More than one case has occurred in my own practice in which, during a paroxysm of asthma, the dyspnœa has remitted markedly for a time, the remission being synchronous with the development of intense headache of a congestive type, which in turn passed off on the full re-development of the dyspnœa. In one marked case the face was deeply flushed, and the patient seemed in such agony that pressure on the common carotid was resorted to.

2. Liveing[5] quotes the American editor of Lobstein's "Treatise on the Sympathetic Nerve," to the effect that some women, having suffered from recurrent sick headache from puberty, on arriving at middle life, lose the cranial pain, but retain the digestive symptoms, which then become associated with those of angina. In one case "there was great palpitation of the heart and embarrassment of the circulation, and most suffocative asthmatic respiration, with pain along the spine (on pressure) and sometimes in the arm and shoulder—in short, a case analogous to angina pectoris."

3. Gowers[6] relates cases in which migrainous and epileptic attacks were inextricably tangled in their symptoms, epilepsy commencing with migrainous visual spectra, and migraine being complicated with convulsive phenomena.

4. Anstie[7] says: "I have certainly seen several cases of asthma in which spasmodic pain of the heart has occurred on various occasions after, or during, a very severe asthmatic paroxysm. One case was that of a gentleman of a highly delicate and neurotic temperament, who had suffered for 15 or 16 years from well-marked spasmodic asthma . . . For some time before the outbreak of cardiac neuralgia, he had suffered repeatedly from severe facial neuralgia, and these attacks on more than one occasion culminated in facial erysipelas, or what was entirely indistinguishable from that affection. He then began to suffer from cardiac pain and spasm after his asthmatic paroxysms, and these new symptoms speedily assumed the form of a very severe intermittent angina; in several of the attacks he appeared about to die."

Retro-sternal pain, not infrequently severe, is, in my experience, a common symptom at the commencement of an asthmatic paroxysm: it might be regarded in some cases as an asthmatic aura.

5. I have above quoted from Hyde Salter's work on asthma, a case in which periodic epileptic fits were on several occasions repeatedly asthmatic fits. But manifestly the replacement was incomplete; for on each occasion the well recognised epileptic aura preceded and led up to the asthmatic fit. Such a case we are justified in regarding as a hybrid between epilepsy and asthma.

A female patient of mine has suffered for 20 years from frequent attacks of epilepsy and asthma, both, however, of a mild type. The more frequent and severe the epilepsy, the less frequent and severe the asthma; and conversely. Both the epileptic and the asthmatic attacks are immediately preceded by premonitory symptoms. Usually these are distinctive; but not infrequently they are indistinctive, and then the patient is at a loss to know from which variety of attack she is about to suffer.

6. Trousseau insists that angina pectoris may be a variety of epilepsy. He says[8]: "In some cases, and perhaps in a pretty good number of instances, according to my experience, angina pectoris is an expression of this fearful and cruel complaint." He calls attention to the similarity of the auræ, the suddenness of the onset, the initial facial pallor followed by redness, and the occurrence of redness in other parts which are the seat of pain. He adds concerning angina: "The intellect is in

Digitized by Google

general unimpaired all the time, although some exceptional instances have been recorded of individuals who had a wondering look and who muttered unintelligible words, as if in a state of ecstasy." It is perhaps open for us to regard cases exhibiting such mental phenomena as hybrids between angina and epilepsy.

Hybrid cases such as those described in the above six paragraphs must remain inexplicable so long as we continue to regard them from the circumscribed standpoint of individual organs, such as the brain, heart and lungs; but if we enlarge our horizon and include therein the general circulation and the almost ubiquitous vaso-motor system of nerves, the difficulties will be found to disappear. For it would be unreasonable to expect the initial vaso-constriction to be equally extensive, to develop with equal rapidity, or to affect exactly the same regions in all cases. Neither could we expect the compensatory vaso-dilation, which is so prominent a proximate cause of symptoms, to be invariably restricted sharply to the one organ or the one locality: there is no apparent reason, for example, why the coronary arteries should not share in the vaso-dilation of the bronchial arteries responsible for the asthmatic paroxysm, and so introduce into the clinical picture of asthma the retro-sternal pain so commonly observed, and so on.

Again, if both vaso-constriction and vaso-dilation are liable to vary in degree and extent, it is highly probable that cases will be found in which the latter affords inadequate compensation for the former. In this event cardiac compensatory inhibition will be demanded in addition, and many cases of asthma, migraine, angina, gastralgia,[9] etc., are recorded in which slowing of the pulse was marked. Such cases, according to the views we are adopting, border on the domain of epilepsy, and we are not surprised to find that in some mental or convulsive symptoms have been observed and recorded.

If we accept the priority of vaso-motor action in the case of migraine, asthma, angina, and epilepsy, we must be prepared to extend this conception over a much wider territory. For a host of other recurrent affections, commonly regarded as neurosal, are as intimately allied to the above-named four affections as these four affections are to each other. The former, equally with the latter, are capable of mutual replacement, and they are susceptible of mitigation or aggravation by the same measures which moderate or exaggerate the pathological vaso-motor action upon which their manifestations depend. The affections referred to probably include tic douloureux and many other varieties of neuralgia, paroxysmal gastralgia, spasmodic (?) croup, Raynaud's disease, hay fever, recurrent oculo-motor paralysis, recurrent temporary amblyopia, paroxysmal vertigo (including some cases of Menière's disease), hydrops articulorum intermittens, and many other paroxysmal or recurrent affections, named and unnamed. All these have as valid a claim to the title of paroxysmal neuroses as have the four familiar affections considered in these papers. Thus the paroxysmal neuroses have a series of pathological affinities which are numerous and diverse, but they have in addition at least one highly important physiological affinity, namely, the periodic process of menstruation.

A Physiological Model of the Paroxysmal Neuroses.—The affinity of migraine to menstruation was perceived by Möllendorff. Having argued that the explanation of the phenomena of migraine must be sought in a morbid condition of the ganglionic system of nerves, he suggests[10] that "the phenomena of menstruation must themselves be regarded . . . as the result of a similar disposition of the sympathetic and the consequent dilation and repletion of the uterine vessels." It will not, I think, be difficult to prove the truth of this suggestion; but the affinity of migraine to menstruation will be no closer than that of asthma or angina, and only one degree more close than that of epilepsy.

As we have argued, the mechanism of the paroxysmal neuroses consists essentially of a widespread vaso-constriction more or less compensated by a localised area of vaso-dilation or by cardiac modification. In proportion to the inadequacy of compensation, so is the rise of blood pressure. The same is true of menstruation.

Of this process, Hermann says[11]: "There is increased vascular tension everywhere . . . According to Giles the increase in vascular tension is greatest on the day preceding and the first two days of menstruation." James Mackenzie says[12] that increased arterial pressure "may take place normally with the recurrence of the menstrual period. The evidence is most obvious immediately before the discharge begins, and relief usually follows once the discharge is freely established." "Broadbent[13] has remarked that the pulse is often slow and of high tension in menstruation." "Barnes's[14] well-known case of hernia of the left ovary, in which the sphygmograph, applied to the left ovary, showed a high blood-pressure preceding menstruation, has been frequently referred to." And Oliver[15] finds that during the menstrual period the calibre of arteries, as exemplified by the radial, ceases to respond to changes of position: he regards this phenomenon as due

Digitized by Google

to transitory vaso-constriction, and compares it to the condition often found in the gouty and in migraine.

That the extensive vaso-constriction, responsible for the rise of blood pressure, affects the cutaneous, amongst other, areas seems assured by the subjective and objective symptoms. There is distinct chilline s, and the skin tends to be cold to the touch, anæmic, dry and shrivelled, presenting accentuations of lines and wrinkles.

The compensatory vaso-dilation of menstruation is not far to seek: it affects the uterus at any rate, probably the other internal and the external organs of generation, and possibly the pelvic viscera generally. It is the proximate factor of the sense of weight in the pelvis and inguinal regions, of the dual sacral pain, and of the characteristic sanguineous discharge.

If we assume that a monthly loss of a few ounces of blood is for some reason essential to the perfect well-being of the adult non-pregnant human female—and such an assumption seems justified when we consider the evi- results which so frequently follow the checking of the flow—then it is hardly possible to imagine any device better adapted to secure a periodic uterine hæmorrhage than the vascular changes which, we are arguing, constitute the mechanism of menstruation. The combination of widespread vaso-constriction with pelvic vaso-dilation results inevitably in vascular distension of the dilated area; and since a portion of this area consists of a free mucous surface, the tissues of which are newly formed, soft, and highly vascularised, hæmorrhage is the natural result. Further, such hæmorrhage will reduce the exalted blood pressure, the primary factor upon which it depends; so it will bring itself to a natural termination, and restore the vascular system and the organism generally to the normal intermenstrual condition.

Clearly the menstrual process is essentially similar in its mechanism to such paroxysmal neuroses as migraine, asthma and gastralgia. Superficially it differs in its invariable termination in hæmorrhage. But this difference obviously depends upon the anatomical features of the tissue affected by vaso-dilation; for most, if not all, paroxysmal neuroses are liable to terminate in hæmorrhage when the vaso-dilation encroaches upon a mucous membrane. For example, in migraine associated with vaso-dilation of the nasal mucosa, epistaxis is not infrequent;[16] in asthma, in which affection a comparatively non-vascular and non-erectile mucosa is the part always affected, hæmoptysis is rare,[17] but it may occur in amount proportionate to the severity of the dyspnœa, that is, to the intensity of the vascular distension; and in paroxysmal gastralgia, an affection which it would not be difficult to show, consists of a widespread vaso-constriction, compensated in part at least by a vaso-dilation of the gastric mucosa, profuse hæmatemesis[18] is by no means uncommon.

More commonly, of course, the vascular distension resulting from the vaso-dilation of the paroxysmal neuroses is not relieved by hæmorrhage, but terminates with the production of the symptoms peculiar to each neurosis, namely, headache in migraine, dyspnœa in asthma, and abdominal pain in gastralgia. The menstrual parallel to such non-hæmorrhagic paroxysmal neuroses is found in certain cases of dysmenorrhœa. In these the pain is usually inversely proportionate to the hæmorrhage. It must be ascribed to an anatomical condition of the dilated area similar to that of the migrainous dilated area, with the difference that the anatomical condition in dysmenorrhœa must be regarded as pathological. Thus anything which at the onset of the menstrual vaso-dilation either prevents the natural swelling of the internal generative organs, such, for example, as old adhesions binding down the ovaries and tubes, or anything which interferes with the escape of exuded blood from the uterus, such as flexions or stricture, will intensify nerve pressure and cause exaggeration of the menstrual pain, which, in some slight degree, may perhaps be regarded as physiological. This is without prejudice to the dysmenorrhœa, which is due to painful contractions of the uterus.

The view we are adopting of the mechanism of menstruation is entirely consistent with, and fully explanatory of, a long series of recorded clinical observations; further it leads up to what seem to me an altogether new series of observations, many of which are highly important from the view-point of practical therapeutics.

It is an old observation—one, however, upon which little stress is laid in modern text-books—that the attacks of the paroxysmal neuroses have a special tendency to group themselves around each menstrual epoch. In so far as I know, this is true of them all. That it is true of migraine,[19] asthma[20] and epilepsy,[21] ample evidence can be found recorded. And I have absolutely no doubt that it is true of angina and gastralgia, though I cannot find the fact in any of the works to which I have access. Finally, I believe it will be found to be true of most, if not all, of the paroxysmal disorders already referred to as closely associated with the disorders specially considered in these papers. All the neurosal affections referred to depend

Digitized by Google

essentially upon extensive peripheral vaso-constriction, and the menstrual incidence of the attacks is explained by the periodic peripheral vaso-constriction, which is responsible for the exalted blood pressure of menstruation; hence the attacks occur chiefly upon the day on which menstruation is impending or commencing,[22] at the time when, according to Giles, the blood pressure attains its highest point. Later in the period, when, as Mackenzie points out, the flow has succeeded in reducing the blood pressure, neurosal attacks of all kinds are much less frequent, and the fact that the blood pressure falls when the flow has become well established has a very important bearing in this connection, for it is the key to the well authenticated observation that checked menstruation or failure of the flow to appear, from causes other than physiological, has a vastly exaggerated tendency to precipitate the attacks of any accustomed neuroses.[23]

In the case of the paroxysmal neuroses, we inferred the indispensability of widespread peripheral vaso-constriction from the abortive or modifying influence on the attacks of anything which causes widespread peripheral vaso-dilation; so in the case of menstruation, an exactly similar series of observations will enable us to draw an exactly similar inference. Anything which causes widespread peripheral vaso-dilation greatly modifies, if it does not cut short, the menstrual flow; and it does so, undoubtedly, by moderating or terminating the indispensable peripheral vaso-constriction.

Systematic *physical exercise* has been shown by Broadbent,[24] Clifford Albutt,[25] and others to be one of the most efficient means of abolishing a tendency to high blood pressure; and there can, I think, be little doubt that it operates by promoting general vascular relaxation. Conformably, it has frequently been remarked in those countries where the female peasantry are occupied in agricultural labour that this class suffer little during menstruation; the loss is trifling, and the process unassociated with any other symptoms.[26] And in menorrhagia, which does not depend upon local lesion, I know of no more successful treatment than the enforcement of regular physical exercise during the intermenstrual period.

The influence of *pyrexia* upon the menstrual process is exactly what we should deduce from the vascular characteristics of the two processes. During the invasion period of most fevers there is a tendency to widespread cutaneous vaso-constriction, and it has often been observed that the onset of a specific fever precipitates menstruation. Dr. Helen MacMurchy[27] points this out in the case of typhoid. My own experience is generally confirmatory. But it is mainly in those cases in which menstruation is shortly due that the precipitating influence of the onset of fever is seen; it is rare for the flow to reappear if a menstrual period has shortly preceded the invasion of the fever.

After the invasion stage of typhoid, and of most continued fevers, is passed, the ruling condition of the arterial system is, as already stated, one of general relaxation and consequent low blood pressure. Conformably it will be found that menstruation thenceforward ceases or becomes a quite insignificant process. When commencing the cold bath treatment of typhoid at the Brisbane Hospital, I was greatly concerned at the supposed danger of bathing during menstruation. Instructions were accordingly issued to the nursing staff to cease bathing in all cases at the onset of the period pending further orders; but, on revising the histories of the female typhoid patients who were in hospital during that period, I find that menstruation remained for the most part in abeyance during the continuance of the pyrexia, and that when present the flow was slight and of short duration.

General *hot bathing* causes vaso-dilation of the whole cutaneous area, and from enquiries which I have made I find that during immersion the menstrual flow is distinctly reduced, the reduction persisting for some few hours thereafter. I confess that until lately I was under the impression that hot bathing had the opposite influence.

Arguing from the vaso-motor theory of menstruation and from the influence of general hot bathing, general cold bathing should exaggerate the flow. Is this deduction consistent with fact? Women, as a general rule, avoid cold bathing during menstruation, a practice which is dictated by fear of checking the flow. Of course cold locally applied, as in a cold vaginal douche, would tend to induce pelvic vaso-constriction, and thus check the flow. The result here would be analogous to the relief of the asthmatic dyspnœa by the inhalation of cold air, or to the relief of headache by an ice-cap. Further, it might be that cold applied to the neighhourhood of the perinæum and pubes would be sufficient, and it is well known that getting the feet wet and cold may terminate a period. But no such partial application of cold is fairly comparable with general cold bathing. Nevertheless, it may be that in some cases general cold bathing is capable of checking menstruation. In making this admission it must be pointed out that the influence of a general cold bath is complex. The procedure can hardly be dissociated from shock, and shock, however induced, is capable of

Digitized by Google

checking menstruation. And there is also the power of suggestion to be considered. These conflicting influences probably account for the varying effects of heat and cold upon the menstrual process in different women. Tilt says[28]: "A hot bath will stop the menstrual flow in some women in whom it is made more abundant by putting the feet in cold water"; and he points out that Dr. Chapman regarded ice-bags to the lumbar spine as the best emmenagogue.

A priori, an efficient means of reducing the menstrual flow which had been checked by shock, emotion, chill or other pathological influence, would be the administration of a hot vaginal douche while the patient is fully immersed in a cold bath. Thus artifically we should intensify the power of the normal machinery of the process. Such a measure would be the reverse of the combinations of general heat and local cold, which we have seen are successful in relieving the paroxysms of migraine and asthma.

Perhaps the clearest evidence of the indispensability to the menstrual process of peripheral vaso-constriction is to be found in the swift and definite influence of *amyl nitrite*. The inhalation of a single capsule during menstruation results in a sudden diminution in the amount of the flow, a diminution which may persist for some time. In the case of a young lady who suffered from anginal seizures limited for the most part to the first two days of the menstrual period, amyl nitrite never failed to give instant relief from the cardiac pain; but the use of the drug had to be abandoned because it invariably terminated abruptly the menstrual flow, with the further unfortunate result that the number of succeeding anginal paroxysms was greatly increased.

Most of the clinical phenomena of menstruation—those which are regarded as physiological and others which are manifestly pathological—are explicable on the vaso-motor theory. Widespread vaso-constriction, conspicuous in, but probably not limited to, the cutaneous area, fully accounts for the condition of the skin: compensatory vaso-dilation, most marked in, but not restricted to, the pelvic area, for the symptoms referable to the ovaries, uterus and other generative organs. Inadequate compensation for the former, by the latter, vascular condition, explains the high blood pressure; and this in turn explains a long series of phenomena.

The retardation of the pulse during menstruation may be regarded, under Marey's well-known law, as a cardiac compensation for the rise of blood pressure.

Foster[29] states that a rise of blood pressure is accompanied with a greater flow of blood through, and an expansion of, the kidney, with an increase in the flow of urinary water; and Dr. Helen MacMurchy[30] finds that in 48 per cent. of healthy women, an increased quantity of urine is commonly passed at each menstrual period. I have found that the increase occurs mainly on the first and second day of menstruation, that is, when the blood pressure is highest. Increased diuresis, similarly explained, frequently occurs, as already pointed out, with the attacks of the paroxysmal neuroses.

Amongst the symptoms of pathological high blood pressure, Broadbent[5] lays special stress upon headache, insomnia, mental depression, irritability, vertigo, loss of energy and neuralgia. This list is practically identical with the list which Dr. Helen MacMurchy,[32] from a study of 100 cases, gives of the commonest symptoms attending menstruation. The coincidence is far too complete to be fortuitous; and the obvious inference is that the symptoms of menstruation referred to depend upon the vascular condition.

It can neither be maintained that peripheral vaso-constriction is limited to the cutaneous area, nor that compensatory vaso-dilation is limited to the pelvic area. Amongst the numerous symptoms of menstruation are many which point to a more than usual degree of vascular distension in various localities. Some of these are probably best explained by an active vaso-dilation of the supplying arteries, for example, the commonly-noticed mammary and thyroid swelling. For the explanation of others it would be sufficient to assume an absence of the protective local vaso-constriction in the presence of general high blood pressure. Amongst phenomena so explicable are recurrent monthly nasal hyperæmia graduating into overt coryza,[31] congestion of the dental pulp,[33] and hæmorrhages from the external ear, throat and upper part of the œsophagus,[34] not to mention innumerable varieties of "supplementary" hæmorrhage,[35] determined by organic lesion in various parts of the body.

Note on the mode of action and therapeutic possibilities of amyl nitrite.—From Guthrie's original observation, Lauder Brunton[36] deduced the utility of amyl nitrite in angina pectoris, and later in migraine, some headaches, neuralgia of the scalp and epilepsy. Others have advantageously extended the use of the drug to seasickness, laryngismus stridulus and spasmodic croup, syncope from fright or shock, dysmenorrhœa and spasmodic asthma;[37] but it does not appear that in all of these latter cases the relief afforded is ascribed to the relaxation

Digitized by Google

of peripheral vaso-constriction. In most it seems to be ascribed vaguely to the relaxation of spasm of various other kinds, although there is no evidence that amyl nitrite in medicinal doses has any influence whatever upon muscular fibre other than that which constitutes the tunica media of the arteries.

Nevertheless, peripheral vaso-constriction can be shown to occur in the majority of the affections, and the relief afforded by amyl nitrite demonstrates, to me at least, that such vaso-constriction is indispensable to the development of the pathognomonic symptoms.

Marey showed that in seasickness the radial artery is extremely constricted, and the pulse infrequent;[38] and Crochley Clapham[39] found that in 124 cases of this affection, the administration of amyl nitrite was followed by rapid relief in 121. Immediately after inhalation, warmth and glow of the surface took the place of chilly sweat; this was followed in half an hour by pleasant slumber, from which the patient awoke free from nausea, and with an appetite.

Though space is wanting here for their enumeration, I have strong grounds for believing that in some of the cases included under the terms laryngismus stridulus and spasmodic croup the pathological condition of the larynx is, at any rate primarily, one of vascular distension and œdema, resulting from localised vaso-dilation, compensatory of a widespread peripheral vaso-constriction. Such cases would differ from asthma chiefly in the localisation of the vaso-dilation, and the relief afforded by the exhibition of amyl nitrite would be explicable by the relaxation of the peripheral vaso-constriction and the consequent reduction of the laryngeal vascular distension.

Goodhart opines that many syncopes depend upon peripheral vaso-constriction, and the following case can hardly be explained on any other hypothesis. A lady had suddenly lost her husband through virulent plague. She went into repeated syncope, which became practically continuous. Her skin, especially of the extremities, was anæmic and cold. Her feet had been wrapped in hot flannels; general frictions and alcohol had been given without result. Dr. Hawkes then saw her. He found marked constriction of the radial and complete corneal anæsthesia. Amyl nitrite was given by inhalation. Sixty seconds later she spoke, and quickly recovered. The syncope did not return. Dr. Hawkes has recently had a second similar case, in which amyl nitrite acted with equal promptitude and satisfaction.

It is stated that amyl nitrite often gives great relief in dysmenorrhœa *with uterine spasm*.[40] The inference is that the relief is attained through relaxation of the uterine muscular fibres, just as the relief of the asthmatic dyspnœa is supposed to be brought about through relaxation of the constricted muscular fibres of the bronchioles. It is improbable that the drug has any influence upon the uterine muscle; but, in any case, the hypothesis is unneeded. As already argued, amyl nitrite, by relaxing the peripheral vaso-constriction of menstruation, will reduce both the vascular distension of the generative organs and the flow of blood. Thus pain, whether it depends upon distension or upon uterine contractions, will be relieved. Conformably, I have found in some cases of dysmenorrhœa which are clearly ovarian that amyl nitrite gives marked relief.

The mechanism of the relief of asthma by amyl nitrite has been already considered.

The vaso-motor theory adopted in these papers has led me to propose the use of amyl nitrite in a series of affections, in most of which, so far as I can discover, the drug has not hitherto been tried.

An emaciated woman of 50, suffering from very chronic fibroid phthisis with persistent high blood pressure, is afflicted at times with a variety of neuralgias. Amongst these are unilateral facial neuralgia, brachio-cephalic neuralgia, neuralgia of the pubes and urethra, and typical angina pectoris. These diverse neuralgias alternate: they never concur. The facial variety is often associated with involuntary muscular twitchings of the painful area, commencing in the orbicularis palpebrarum, but extending to the rest of the corresponding half of the face: the urethral variety is associated with intense dysuria. All the varieties, except the angina, are associated with visible cutaneous vaso-dilation at the seat of pain; and all of them, without any exception, are associated with distinct tightening of the radial and with considerable cutaneous anaemia of most non-painful areas. She obtains instant but temporary relief from each and all of these conditions by amyl nitrite. Synchronous with the cessation of the pain in each case, the flushing of the painful area becomes less sharply defined, and the radial resumes its habitual volume or becomes larger and softer than usual. The convulsive complications cease simultaneously.

A female patient under Dr. Hawkes had suffered from almost constant gastralgia for nearly a week. A capsule of amyl nitrite gave instant relief which lasted two hours.

Dr. W. J. Fearnley, late resident medical officer of the Brisbane General Hospital, kindly undertook to investigate the influence of amyl nitrite upon rigors. In five successive rigors occurring in three patients, the inhalation of a single capsule of the drug terminated the rigor

Digitized by Google

absolutely in every instance in from 20 to 30 seconds. The first case was a septic Pott's fracture, the second probably influenza, and the third puerperal septicæmia. In the last there were three rigors, all of which were severe until they were aborted by the drug.

The marked influence of amyl nitrite in instantaneously reducing and even stopping the menstrual flow brings up the question of the medical treatment of all internal hæmorrhage. There can be no doubt that many internal so-called idiopathic hæmorrhages are proximately due to localised vascular distension from localised vaso-dilation compensatory of widespread peripheral vaso-constriction. This is true at least of physiological and vicarious menstruation, of the epistaxis and other hæmorrhages of migraine and hyperæmic headaches generally, of the hæmoptysis of asthma, and the hæmatemesis of gastralgia.

Dr. Bertrand Dawson,[41] in opening a discussion on the "Pathology, Prognosis and Treatment of Hæmatemesis," refers to cases simulating gastric ulcer as "hæmorrhagic gastralgia" presumably due to nervous disturbance. Dr. Hale White pointed out that the stomach had been opened on account of hæmatemesis without any ulcer being found. Such an experience occurred to Mayo Robson on two occasions. Of the first case, this surgeon says:[42] "I counted no less than seven bleeding points. As two of them were bleeding freely, I took them up by artery forceps and ligatured the mucous membrane *en masse;* the other points stopped on exposure to air." Of the second, he says: "I opened the stomach and carefully explored the interior, where, though I could find no evidence of any large ulcer, I found a considerable number of bleeding points, three of which I ligatured *en masse*, afterwards swabbing the whole interior of the stomach with a sponge saturated with tincture of hamamelis."

That gastralgic hæmorrhage is very common may be inferred from the fact, insisted upon by Dr. Essex Wynter,[43] that "80 per cent. of the cases of hæmatemesis occurred in young women, with scarcely a death, and that the fatal cases occurred equally in men and women, and at a later age." The diagnosis of such cases from gastric ulcer is extremely difficult. It is true that the hæmatemesis of gastralgia is frequently periodic at the onset of menstruation, especially if this is delayed—it constitutes, indeed, an important variety of vicarious menstruation. But periodicity is of little value from a diagnostic viewpoint, for in gastric ulcer also the hæmorrhage tends to be periodic through the normal menstrual increase of blood pressure.

On the vaso-motor theory the indications for treatment comprise the promotion of (1) vaso-constriction of the gastric mucosa, and (2) vaso-dilation of some large area elsewhere or generally. The first may be met by ice pills; the second by heat to the whole surface of the body, as by a general hot pack or by the administration of amyl nitrite. Such measures would act on exactly the same hydraulic principle as do the combinations of heat and cold, which we have seen are effectual in relieving the manifestations of vascular distension in migraine and asthma. They have yet to be tried in gastralgic hæmatemesis, but I can hardly doubt their success or partial success, and they would be superior theoretically to the administration by the stomach of adrenalin, which has been used with success, since this drug has a general as well as a local vaso-constrictive action.

But in many, perhaps most, cases of internal hæmorrhage depending primarily upon peripheral vaso-constriction, it is impossible to achieve vaso-constriction of the hæmorrhagic area. Then the promotion of general vaso-dilation is the indication of primary importance. Though I have used it frequently I have never been able to find any valid excuse for the plan of giving ergot (except, of course, in uterine hæmorrhage), which promotes general vaso-constriction and rise of blood pressure, nor have I ever seen any benefit from its use.

In the following case, communicated to me by Dr. Hawkes, the rapid action of amyl nitrite was well illustrated. A man of 36, who suffers from mitral insufficiency, is often attacked, on catching cold, with hæmoptysis. This, in all probability, is a response to cutaneous vaso-constriction. The bleeding had never ceased under two days; usually it had lasted for from two to four days. On one occasion it had persisted for ten days. On the last occasion hæmoptysis began at midnight. There was marked coldness of the hands and feet, which was not due to anxiety. The inhalation of one capsule of amyl nitrite instantly relieved the vascular spasm of the extremities, and, although the expectoration continued blood stained until the following day, it was quite clear that the bleeding had been instantaneously checked. The rationale of this result is quite simple. Amyl nitrite, by inducing widespread peripheral vaso-dilation, reduces the resistance in the aortic outflow and, as Schäfer points out, the blood pressure in the pulmonary circulation may be reduced passively "by a fall of pressure in the left auricle due to diminished resistance in the aortic outflow."[44]

But the treatment of internal hæmorrhage by the induction of general vaso-dilation applies not alone to cases in which there is exaggerated

Digitized by Google

peripheral vaso-constriction. The normal condition of the systemic arterioles is one of tone, and the induction for a time of a subtonic condition in widespread areas will materially reduce vascular distension in the bleeding area, and thereby increase the probability of hæmostasis. This consideration suggested the employment of amyl nitrite in the hæmoptysis of phthisis. The following is a short account of the first case in which the experiment was made.

John S., aged 31, phthisical patient in the Diamantina Hospital, with consolidation and softening at left apex, had hæmoptysis at 4.30 p.m. One capsule of amyl nitrite was immediately given, whereupon the bleeding ceased instantaneously. At 6.50 there was a slight recurrence, and nitro-glycerine m. $\frac{1}{100}$ was ordered to be given every two hours. Hæmoptysis recommenced at 12.40 on the following morning, but was again stopped instantaneously by amyl nitrite inhalation. Since then there has been no bleeding. In this case there can be little doubt that the bleeding ceased propter, and not merely post, hoc. On both occasions on which the inhalation was given, the patient was bringing up mouthfuls of blood at regular intervals of about two minutes; and on both occasions the mouthful preceding the inhalation was the last of the series.

The drug has little influence in checking cough; and examination of the subsequent sputa in the above case showed that little, if any, blood was retained extra-vascularly in the lung. This is opposed to what often happens when hæmoptysis is checked by morphia, where, through the suppression of cough, blood is frequently retained and may lead to septic pneumonia

On the principle suggested, amyl nitrite should prove efficient in the hæmatemesis of gastric ulcer and many other forms of internal hæmorrhage. Through the fugacity of its effect it would probably prove less useful in the intestinal hæmorrhage of typhoid.

Finally, I would suggest a trial of the drug in all the paroxysmal affections referred to in these papers as probably dependent on exaggerated or abnormal vaso-motor action. Not being engaged in active practice I have but little opportunity myself to make such tests. Consequently I shall feel deeply grateful to others for notes as to any results they may obtain, whether positive or negative. Such, I need hardly add, will be fully acknowledged.

REFERENCES.—(1) Clifford Allbutt's System of Medicine, vol. v., p. 291. (2) Diseases of the Nervous System, 1893, vol. ii., p. 849. (3) On Asthma, 1878, p. 44. (4) Epilepsy, 2nd ed., p. 116. (5) Megrim and Sick Headache, 1873, pp. 219 and 220. (6) Disease of the Nervous System, 1893, vol. ii., pp. 848 and 849. (7) Neuralgia and its Counterfeits, 1871, pp. 68 and 69. (8) Clinical Medicine, New Sydenham Soc., vol. i., pp. 602, 605 and 606. (9) Megrim and Sick Headache, Liveing, 1873, pp. 311, 329, 330, 331, 332, 214, 217, 219, 230; also, on Periodical Headache, Buckling, p. 3. (10) Megrim and Sick Headache, Liveing, 1873, p. 308. (11) Diseases of Women, p. 517. (12) The Study of the Pulse, 1902, p. 71. (13) Uric Acid in Disease, Haig, 1897, p. 260. (14) Physiological Phenomena of Menstruation, Helen MacMurchy, *Lancet*, 1901, Oct. 5. (15) *Brit. Med. Journal*, 1896, vol. i., p. 1375. (16) Megrim and Sick Headache, Liveing, 1873, pp. 325 and 326. (17) On Asthma, Hyde Salter, 1863, p. 371. (18) Bertrand Dawson, *Brit. Med. Journal*, November 29, 1902, p. 1709. (19) Megrim and Sick Headache. Liveing, 1873, p. 47. (20) On Asthma, Hyde Salter, 1868, pp. 95 and 393. (21) Dis. Nerv. System, Gowers. 1893, vol. ii., p. 752. (22) Megrim and Sick Headache, Liveing, 1873, p. 47; on Asthma, Salter, 1868, p. 95; Dis. Nerv. Syst., Gowers, 1893, vol. ii., p. 752. (23) On Asthma, Salter, 1868, p. 95; Epilepsy, Gowers, 1901, p. 34; Clinical Medicine, Graves, New Syd. Soc., vol. ii., p. 351. (24) System of Medicine, vol v., p. 846. (25) The Pulse, 1890, p. 179. (26) Playfair's Midwifery, 1898, vol. i., p. 75. (27) Physiological Phenomena of Menstruation, *Lancet*, Oct. 5, 1901, p. 910. (28) Uterine Therapeutics, 1878, pp. 252, 253. (29) Text Book of Physiology, 1895, p. 692. (30) *Lancet*, 1901, Oct. 5, p. 910. (31) The Pulse, 1890, pp. 176, 177. (32) *Lancet*, 1901, Oct. 5, The Physiological Phenomena of Menstruation. (33) Revue Med. chir. dermal de Femmes, Dec., 1891. (34) Dr. H. MacMurchy, *Lancet*, October 5, 1901. (35) Menstruation and its Disorders, Giles, 1901, p. 76. (36) Parmacology, Therapeutics and Materia Medica, 1885, p. 710, *et seq.* (37) Ibid.; also Practical Therapeutics, H. A. Hare, 8th ed., pp. 71, 72. (38) Uric Acid in Disease, A. Haig, 1897, pp. 178-181. (39) *Lancet*, August, 1875, p. 276. (40) Practical Therapeutics, H. A. Hare, 8th ed., p. 72. (41) *Brit. Med. Journal*, Nov. 29, 1902, p. 1709. (42) *Lancet*, Dec. 13, 1902, p. 1627. (43) *Brit. Med. Journal*, Nov. 29, 1902, p. 1710. (44) Text Book of Physiology, 1900, vol. ii., p. 150.

MANAGEMENT OF EPIDEMIC PLAGUE.

By J. Ashburton Thompson, M.D., D.P.H., President of the Board of Health, New South Wales.

In all accounts of epidemic plague which have hitherto been published, the following causes have been recognised as efficient:—Communication of the infection from the sick by direct, and by indirect, channels (fomites), and place-infection[1]; by which latter is meant extra-corporeal persistence of the infection in houses, etc, to which it has been communicated by the sick who have sojourned in them. By the two former the infection would be diffused, by the latter maintained. They would amply suffice, of course, to explain the epidemicity of plague; any share which may be borne therein by the rat has consequently been left in a position of undefined importance. When the Medical Officer of the Local Government Board wrote[2] that the world-record of epidemic plague on which he was commenting failed completely "in affording sufficient data for determining the degree to which man was in danger from the rat," he accurately summed up the then, and even the present, state of opinion. Destruction of rats is now universally recommended, it is true; but as a counsel of prudence, not as a demonstrated necessity, still less (if it could be carried to extermination) as the sole essential. All that has been ascertained on this head is that man and the rat are susceptible of an identical infection. That

Digitized by Google

plague is primarily a disease of the rat, that it is commonly communicated to man from the rat, or that man and the rat in circumstances of usual propinquity are reciprocally infective, are but conjectures; for it has been also said that sometimes an epidemic has preceded the epizoötic, and even, in different places, that each has run its course unattended by the other. Nor are current views free from inconsistency; for, while human intercourse is insisted upon as the most important means by which the infection is introduced into distant places, it is also taught at the same time and by the same writers that the disease is rarely communicated from the sick to the well when the former remain at home, or enter hospitals in the neighbourhood of the place at which they have been attacked. This contradictory teaching was noticed[3] in India five or six years ago, and is still heard there. Briefly, the epidemiology of plague has been left obscure by the observations thus far recorded in other countries, and, indeed, in confusion.

It has gradually become an article of popular belief in this State that plague is diffused solely by the rat. This is owing in part, no doubt, to persistent inculcation of that view by the Board of Health from December, 1899, onwards; but inacquaintance with the difficulties which beset the simple theory which is implied in the one word "rat" has probably contributed largely to establish it. These difficulties consist primarily in absence of direct evidence that plague-rats are causatively associated with plague in man. If the fact were so, coincidences between plague-rats and cases of plague should be commonly, and it seems *a priori* easily, observed—coincidences in time, in district prevalences, and on individual premises; lastly, rat-plague should have been noted invariably to precede plague in man. But, in fact, elsewhere very little more than a general liability of man and the rat to suffer at or about the same time has hitherto been recorded. Further, if such coincidences had been noted often enough to warrant inference of causative connection between the two, another and serious difficulty would still present itself; namely, how communication of the infection from rat to man could be brought about so commonly as to account for epidemics. For in the rat plague is a septicæmic disease, and some special means of conveyance are certainly necessary.

Consciousness of these difficulties on the one hand, and on the other belief in the efficiency of the first-mentioned causes, resultant from observation in circumstances which made accurate observation very difficult, have contributed to the confused views on the epidemiology of plague at present generally entertained. And consequently management of epidemic plague commonly consists in strict isolation of the sick, segregation during the incubation period of those who have been in contact with them, and in practice of the same rigorous kind of disinfection as is proper in the case of smallpox or of scarlet fever.

But all are aware that here, in Sydney, plague has lately been successfully managed in a simpler way. On occurrence of the first case of the epidemic of 1900 (January 19th) the Board of Health recommended[4] that the sick should be removed to the Infectious Diseases Division of the Coast Hospital, there to be lodged as were cases of chicken-pox or of measles in adjacent wards in the same enclosure. It announced on March 2nd, 1900 (case 5), that it was unnecessary to segregate contacts, and that for the future it would as a rule remove the sick only from dwellings; while on March 23rd, 1900 (case 31), it so far expressed its opinion regarding the probability of diffusion of the infection by merchandise, as to permit removal of goods in the ordinary course of trade from premises within the area which on that date was the first to undergo systematic cleansing.[5] These several advices were declined, however, by the head of the Government of that day. Consequently the sick were isolated at the Maritime Quarantine Station at North Head, contacts were segregated at the same unsuitable place, and cleansing-areas were as strictly "quarantined" by temporary fences and cordons of police as physical circumstances permitted. The results were: 303 cases, a fatality of 32·4%, and an expenditure of £176,000. In 1902 the Board was left free to manage the second outbreak as it thought best, and, consequently, then did as it had wished to do in 1900. The results were: 139 cases, a fatality of 25·75%, and an expenditure of £24,000.[6] But as regards cost on this second occasion, the Local Authority for the city of Sydney took its proper share of the cleansing work, under the very able advice of the Medical Officer of Health for the Metropolitan District (Dr. W. G. Armstrong, M.B., D.P.H.), and spent on this an additional sum of £8000. Expenditure during the second epidemic must therefore be reckoned at £32,000. It will be perceived, however, that even that amount, when multiplied by the factor which turns 139 into 303, yields a product which is well below £70,000. For this latter sum at most, therefore, the epidemic of 1900 might have been managed but for the direction by which the Board was then overruled; and probably the

Digitized by Google

cost might have been even smaller, for the method of management which was accompanied in 1902 by a much reduced fatality, would presumably have been also attended with a smaller number of cases had it been applied in 1900.

The advice just mentioned as having been given before the epidemic of 1900 had set in, or quite at its commencement, had been deduced from reports of epidemic plague which had been issued at that date by other countries; it was not, and still is not, in accordance with the opinions of such reporters, or of others who have since furnished further accounts. Nevertheless, at conclusion of that epidemic it was possible to show beyond dispute that it was sound. It appeared clearly that human intercourse had not in any degree operated to diffuse the infection, and (as far as judgment could be formed on results of a first visitation) that place-infection had not operated to maintain it. These observations constituted a step of which the importance has been almost entirely overlooked; one writer alone,[7] so far as I am aware, having recognised it. They were due, it need hardly be added, to no differences between the disease as seen here and as it appears, for instance, in India, or in China, for there were none. Nor can they be ascribed, either to the effects of management (such as are implied in prompt removal of the sick and prompt disinfection of their dwellings), or to differences in housing, feeding, climate and the like; for although these factors may account in some degree for the smallness of each of our epidemics as compared with those which have happened in some other parts of the world, yet the number of cases which did occur was absolutely considerable. No; they flowed solely from utilisation of the better opportunity for accurate observation which a civilised community, a European type of government, and an efficient sanitary organisation afforded.

With that expression of opinion these notes may be closed, for here my object is merely to draw attention to the Sydney method of managing epidemic plague, and to the success with which it has been attended. While all the members of the Public Health Staff over which I have the honour to preside are now satisfied that with us the sole source of infection for man consists in rats infected with plague, and that the hypothesis of the flea—for so it must still be called—best explains and co-ordinates all the phenomena which our epidemics have presented, the recorded evidence on which these opinions rest is too lengthy for inclusion in any such paper as this; nor, at this stage, will it bear condensation. Those who are specially interested in the subject can now study it in the reports on the first and second epidemics which have been published. I conclude, therefore, by remarking that there are several points which still await research, some of which are: Plague in the rat, with especial reference to possible occurrence of a chronic form; repetition of the successful experiments reported by Simond,[8] Raymond and Gauthier,[9] and Elkington[10] on transmission of this infection from animal to animal by fleas, but by the method adopted by the last-mentioned writer when working in the Plague Research Laboratory at Bombay under Haffkine; and precise observations on the time during which the flea continues capable of communicating the infection which it has acquired from the rat. Ability of some of the species of fleas which infest rats to feed upon man has been sufficiently established by Tidswell[11] (who first discovered P. Pallidus to be the species most commonly infesting rats on the Australian coastline—an observation which was found to hold good of rats in Bombay after he had communicated it to correspondents in that city) as well as by others.

REFERENCES.—(1) Indian Plague Commission, July, 1901; see also A Manual of Plague, by W. E. Jennings, major I.M.S., 1903. (2) Reports and Papers on Bubonic Plague, July, 1902 (I regret to be obliged to point out here that the account of plague in New South Wales which is given in the volume referred to, and of which I am in the best position to speak authoritatively, is erroneous in almost every detail of importance). (3) By Hankin, Annales de l'Institut Pasteur, xii. p 714, 1898. (4) Report of the Board of Health on the case of A.P., February 7th, 1900, by the present writer; W. A. Gullick, Government Printer, Sydney, 1900. (5) Report on an outbreak of plague at Sydney, 1900, by the present writer; Government Printer, Sydney, 1900. (6) Report of the Board of Health on a second outbreak of plague at Sydney, 1902, by the present writer; Government Printer, Sydney, 1903. (7) W. Kolle, Zeit. f. Hygiene, 1901, p. 397. (8) Annales de l'Institut Pasteur, 1898. (9) Comptes Rendues de la Société de Biologie, liv., p 1497, Dec., 1902; Revue d'Hygiéne, xxv., p. 426, May, 1903. (10) *Australasian Medical Gazette*, xxii., p. 348, August, 1903. (11) Report, Sydney, 1902, p. 71, "Ecto-parasites of the Rat," by Frank Tidswell, M.B., D.P.H., Microbiologist to the Board of Health.

A CASE OF ANEURISM OF THE TRANSVERSE AORTA.

By Louis Henry, M.D., Assistant Honorary Physician to the Alfred Hospital, Melbourne.

THE walls of a true aneurism consist of parts of the intima and adventitia. The muscular coat has disappeared, and a degenerative and a disintegrating change in the artery has taken place, which is frequently associated with some calcification which disposes towards the formation of unilateral dilatation of the walls. The opening into a sacculated aneurism is a small orifice, and the exact pathological origin is a localised endarteritis inducing a lesion of the inner surface of the artery. Aortic aneurism is frequently the result of strain, and occurs among those whose duties consist in severe

Digitized by Google

efforts with the arms, lifting of heavy weights, as among porters and soldiers, more common in men than in women, the proportion being about eight to one.

Aneurism in children is more intracranial, and the exciting cause is generally some atheromatous degeneration of the vessels induced either by congenital syphilis or tuberculosis. In adults aneurisms are more frequent between the ages of 40 and 45. The remote causes are ascribed to syphilis, plumbism, alcoholism and other chronic intoxications.

When once the yielding of the walls of the vessel commences, the sac distends gradually, and may eventually rupture, but even then a



secondary retaining-wall may be formed by condensation and reactive hyperplasia of the surrounding tissue. In an attempt at consolidation a large number of laminated clots, like skins of an onion, may form, which exhibit a tendency to contract and organise; or these clots may break down and suffer subsequent degeneration. As the pathological condition progresses, the increasing growth of the aneurism very quickly implicates the surrounding tissues, so that they become compressed and undergo necrosis. In advanced cases the ribs and the sternum by constant pressure undergo erosion, until the aneurism projects as a pulsating tumour beneath the skin. Pressure is also made on the bronchi, the trachea, œsophagus, or lungs, and rupture may take place into any of these parts. Sometimes the sac projects posteriorly, eroding the bones of the vertebræ and compressing the spinal cord. When the sac is visible, its character is that of a soft fluctuating tumour possessing an expansile pulsation, enlarging in every direction with each beat of the heart. At the same time an irresistible throb is felt and a loud characteristic bruit is heard, usually systolic, but sometimes diastolic, which is due to a secondary wave in the aorta, and is produced by a forcible closure of the aortic valves. A very often overlooked cause of wasting and anæmia is the pressure of an aneurism on the ductus thoracicus, which may impede the flowing chylus to the blood system.

There is less danger to be feared from the larger aneurism than the smaller ones, for the larger ones are as a rule strengthened by a considerable thickening of the vascular membrane, by the plastic deposits of layers on the inner surfaces, and partly by the growing together of the walls of the aneurism with the annexed surfaces of organs or membranes. The brassy cough is due to pressure on the trachea, and when once heard is easily recognised again. There is very slight expectoration, if any.

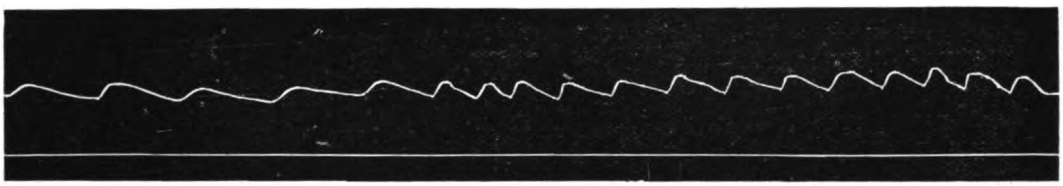
In aortic aneurism confirmatory evidence in diagnosis is obtained by what is termed tracheal tugging. This symptom is due to the aneurism pressing downward on the left bronchus. Each time that the aneurism expands with the cardiac systole it forces the left bronchus down and with it the entire trachea and larynx. To observe the phenomenon you place the patient on a chair and stand behind him; then place the tip of the forefinger of each hand on the circoid cartilage. If you are dealing with a thoracic aneurism you will feel a distinct impulse to the fingers with each heart-beat. It does not follow, however, that every case of tugging indicates aneurism. It is not uncommon in some cases of perfect health to obtain a slight tug. Pressure on the vagus and recurrent laryngeal nerves may cause bilateral laryngeal paralysis.

In the examination of the physical signs of the case which I am reporting I have used an instrument which has been designed with the view of rendering accurate records of the blood pressure; this instrument is called the hæmodynamometer. It obviates largely any possibility of error in making observations of blood pressure which the personal equation induces. The graduations of the instrument have been determined by the mercurial manometer. Observations are taken of the mean arterial pressure and the obliterating arterial pressure. For clinical work the

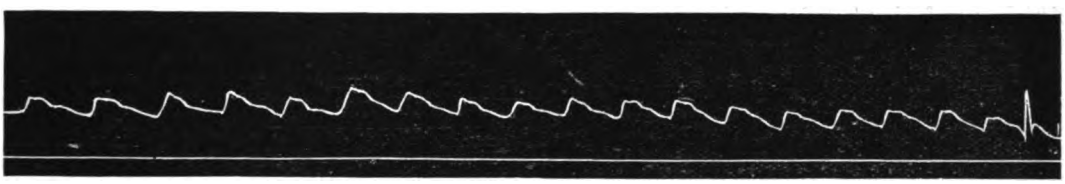
Digitized by Google



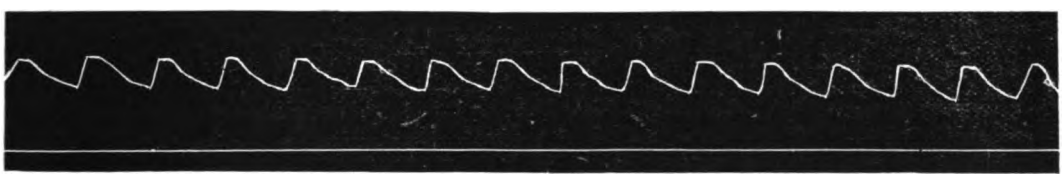
TRACING OF ANEURISM PULSATIONS.



RIGHT RADIAL PULSE



LEFT RADIAL PULSE.



RIGHT RADIAL PULSE.

mean arterial pressure is the most important. A fair amount of practice is required to apply the instrument correctly and gauge its value and interpretation. The normal range lies between 100 and 130 mm. hg. in the erect position. Arterial pressure rises somewhat after the age of 40. The detection of an excess of arterial pressure is more important than a lowering of it. When the arterial pressure is raised the cause is peripheral, either due to contraction of arteries, arterioles, or to organic changes. It may be perpetually high, thus indicating a latent form of contractiug kidney. In chronic gout and Bright's disease the tension is persistently high. However, it is quite possible to observe this in many neurotic ailments, and in lithæmia, without any kidney lesion existing at all. But whatever the cause, the value of the information lies in the evidence it affords not only for the treatment but in demonstrating the effects of treatment. We may even exploit this instrument still further; it will show us that the significance of a high blood pressure with a normal pulse, or even an intermittent one, is of greater significance than a similar blood pressure, with a frequent pulse. I have used two kinds of hæmodynamometers. The one is manufactured by Hill & Barnard, and is called a sphygmometer; here the blood pressure is estimated by the height to which a column of greenish-coloured fluid is driven up a closed tube against the resistance of the air confined above it. In Oliver's dynamometer the pressure is read off an ordinary pressure gauge, which has been carefully graduated.

The following is a report of my case:—J.W., aged 67, a native of Glasgow, arrived in New Zealand in 1860, and served through the Maori war. He subsequently came to Victoria, in 1866, where he took up brickmaking, and was later on engaged in road making. He was admitted to the hospital of the Victorian Homes on August 16th, 1902, suffering from aortic aneurism. On October 1st I placed him on the following diet:—Breakfast: bread and butter

Digitized by Google

3 oz., milk 3 oz.; dinner: meat or fish 2 oz., bread 2 oz., milk 4 oz.; supper: bread and butter, 3 oz., milk, 3 oz.; medicinally pot. iod. gr. 20, ter in die. This dose has been both increased and decreased according to symptoms. On October 21 he received additionally calc. chlorid. gr. 20, ter in die. The bowels are easily moved, and the temperature is inclined to be subnormal. There is no dyspnœa, and his respiration seems easy. He acquired syphilis when he was about 27 years, but has had no other illness of any note. He has led a very laborious life, subject to many vicissitudes; at times he has drank heavily. The specific gravity of his urine is 1022, the quantity passed in 24 hours 25 oz., slightly alkaline, solids about 550 gr. and urea 275 gr. His body weight being about 130 lb., the total quantity of solids should have been about 1028 gr., showing a deficiency of about 478 gr. There are slight traces of albumen, no casts, no sugar, chlorides abundant, indican in excess.

On inspection a tumour is visible, beginning at the second intercostal space on the left of the middle line of the sternum and about the size of a large orange; it is soft and expansile. The tumour extends beyond the third left interspace. There is evident erosion of the sternum and ribs. As the case proceeded the sac enlarged in every direction, and at last assumed the dimension shown in the illustration. On auscultation a double swishing murmur is heard, and the accentuated second aortic sound over the second right intercostal is ringing and snappy. The veins of the neck, head and upper extremities and thorax are swollen. There is no œdema; no aphonia. The pain is severe, and slight dysphagia exists. On November 13th the tumour measures: Circumference, 9 in.; perpendicular diameter, 5 in.; horizontal diameter, 5½ in.; height from base, 2½ in. The radial pulse between 80 and 84. He now started to take tr. veratri viride m2, ter in die. This was gradually increased to m4 pro dosi; the pot iod. was reduced to gr. 10; the chloride calcium continued, and the same diet. On November 17th the pulse fell to 76, the daily output of urine continued at 24 oz.; the body weight diminished considerably. On November 21 the pulse ascended to 84; the verat. viride was increased to m7, pot. iod. reduced to gr. 5. Owing to a coated tongue he received a few powders of grain doses of calomel and aloin. The verat. viride was pushed to 10m. four times a day, and on the 22nd of November I performed venesection from the median basilic to the extent of 10 oz. The blood was thick and dark, and coagulated immediately. On December 4th, in the horizontal position, with Hill and Barnard sphygmometer, the median pressure was 160mm. hg., left wrist; on right wrist, 170 mm. hg., pulse 90; pressure over tumour, 140 mm. hg. On December 10th the pulse was still 80, and full, resp. 21, temp. 98·2; bowels operating naturally; sensorium clear, and spirits cheerful. The drug treatment was now changed to erythrol tetranitrate, which, starting at 1½ gr. three times a day, was increased to 2 gr. three times a day, and the calcium chloride continued. The pulse still remained at 80, and the other conditions the same; the sphygmometer showed the right radial to be 120 mm. hg.; left the same. The erythrol was then reduced to 2 gr. per diem, a little brandy administered, and Dover's powders (5 gr.) administered to lessen pain. December 16.—All medicine was stopped; temperature, 99°; pulse, 90; bowels purging; Mellin's food ordered. December 21.—Diarrhœa continuing; beaten up eggs and stimulant; pulse, 110; respiration, 22; temperature, 99°; patient weak; pain in left breast severe; unable to retain horizontal position; dyspnœa bad, unable to speak above a whisper. December 22.—Morphin ⅛ gr. hypod. at intervals of eight hours; indication of collapse; becomes gradually unconscious, and died at 5 a.m. on December 23.

Post-mortem.—First two ribs on left side and first three on right side eroded near manubrium of sternum. Left ventricle very much hypertrophied; heavy calcareous deposits in aortic valve; immensely distended aorta; upper part of sternum approaching first; second and third ribs of middle line eroded, leaving a large hole, the dimension of which is 1½ in. x 2½ in., penetrated by a saculated tumour the size of a large orange. The tumour consists of fibrinous layers of dark clotted subsistence, easily peeling off and breaking down. A small opening, the size of a thin quill, is seen at the base of the tumour, and communicating with the aorta. The lungs were slightly engorged at the base; the trachea injected with slight redness; the liver enlarged, though not pathologically so; the kidneys show slight increase in interstitial tissue, and no apparent atrophy of the glomeruli or tubules; the brain gave no indication of any mischief.

Conclusions.—I find iodide of potassium in advanced cases of no apparent benefit. Erythrol tetranitrate, in full doses, has some influence in lowering tension, but no noticeable influence in affecting the frequency of the pulse. Tufnell's dietary treatment should only be carried out at short intervals, for its effects in combination with drugs affecting the vaso-motor system are too lowering when extended over a lengthened period and induce wasting. The formation of

Digitized by Google

a series of laminated blood clots in the tumour indicated that an organising process was going on, and that possibly the calcium chloride in full doses was influencing the blood in forming these deposits. Owing to the throbbing and expansile nature of the tumour it was not possible to diagnose its exact condition and know how far there was any filling and organising of the tumour.

ON CERTAIN PELVIC AND ABDOMINAL OPERATIONS.

By E. T. Thring, F.R.C.S. (Eng.), Sydney.

I PROPOSE to-night to speak briefly concerning a few points in connection with certain frequently performed operations; to criticise, in fact, the position in which we, as medical men, are placed, both with regard to the operations in question and to the patients upon whom the operations are performed.

The surgical procedures to which I intend to especially refer are: *Dilatation* of the cervix uteri, *curetting* of the uterus, *repair* of the cervix uteri, *plastic vaginal* operations, *operations* for uterine displacements.

I did intend to speak about operations upon the appendix vermiformis, and also some points relating to the "conservative surgery of the ovaries and Fallopian tubes," but time will, I am afraid, not permit of this.

The operations referred to are amongst those most commonly performed, both by general practitioners, general surgeons, and so-called specialists. Some of them are so frequently done that one cannot help the feeling that sometimes the necessities of the individual case scarcely justify such frequent resort to operative measures. Let us take the instance of the operation of dilatation of the cervix and curetting of the nulliparous uterus This is of value in certain cases of *primary dysmenorrhœa*—whether the patient is married or unmarried—*sterility*, and those unusual cases of *menorrhagia* in which there is no pathological condition discoverable by clinical examination of either uterus, ovaries or Fallopian tubes, and also cases of *gonorrhœal or other infection* in which there is still a hope that the infective process may be arrested before it reaches the Fallopian tubes. In each one of these conditions the most careful consideration of each individual case is requisite, and it is precisely this careful consideration which is, I fear, so frequently wanting. I have often heard the remark made, "Well, curetting cannot do any harm at all events." That is not so much the question, as how much good will it be likely to do? Before submitting the patient to the risks which do accompany every operation, however slight, and putting the patient to the expenses, direct and indirect, which result, we ought to have good and sufficient reasons for expecting a marked benefit to the patient as well as to our own pockets.

Unfortunately one often sees instances in which a more or less neurotic patient who complains of vague pains and aches in the iliac regions, or somewhere in the pelvis, and who is anæmic and in generally poor condition, has been advised to submit to the operation of dilatation of the cervical canal and curetting, and is none the better afterwards. Apparently no trouble has been taken to go into the question of diet, exercise, general personal hygiene, and, above all, to cure the tendency to constipation which so frequently exists in these patients. At the present time there is, I fear, a too frequent inclination to resort at once to operative treatment of these cases without a full justification.

That there are many instances of women who suffer severely from primary and progressive dysmenorrhœa, which is associated with an infantile and ill developed type of uterus I freely admit, and also that in many of these distressing cases great relief can be obtained by operative treatment, but it should be the *last resort*, not to be suggested until other methods have been thoroughly thought out and tried. If, after due consideration, operation is determined upon, then let it be done *thoroughly*, and this is only possible under an anæsthetic.

There is another and entirely different class of cases in which curetting the uterus is of the greatest value and importance. I mean those in which an incomplete abortion has occurred. Here no possible good can result from delay. Apart from the question of loss of blood, which may be severe, there is the great risk of sepsis, so long as any portion of clot or decidua remains in utero. But again, let the operation be thorough. I have not infrequently been called upon to see patients who have aborted and curetting has been done, and still there persists hæmorrhage or sepsis, or both, and frequently a second operation has demonstrated the fact that the uterine cavity has not been thoroughly emptied, hence the first and incomplete operation has probably done harm rather than good, first, by causing delay in the removal of the source of trouble, and secondly, by forcing septic matter into the uterine veins or lymphatics. I have noticed that most of the instances in which an incomplete operation has been done are those not uncommon cases in which the uterus is soft,

Digitized by Google

flabby and retroverted and flexed, possibly fixed in this position by pelvic adhesions. I believe that not infrequently a fear of perforating the softened uterus with the curette has been at the bottom of the trouble. I know that sometimes an instrument called a "blunt curette," *i.e.*, without a sharp edge, has been used so as to avoid this danger. It is a most useless and dangerous instrument. One might almost as well say that one preferred to use a blunt knife in operating so as to avoid making too deep an incision. Of course, when it is possible to explore the inside of the uterus with the finger, nothing can be better, for it can be used both to detach adherent decidua or clot, and to demonstrate the fact that all is clear inside. In cases of early abortion, however, the cervical canal will not always admit the finger, even after considerable dilatation, and in no case should the use of an efficient curette be neglected.

Laceration of the cervix uteri, the result of childbirth, instrumental or otherwise. Every practitioner knows how frequent the occurrence of this condition is, and yet how rarely it, *by itself*, causes symptoms. But one constantly hears the various aches and pains complained of by the patient who has a lacerated cervix explained as being due to "reflex irritation" set by this condition. I do not at all mean that cervical tears of considerable extent should be neglected, but rather that in most cases such a reparative procedure should be undertaken as one step in a carefully planned operation in which other steps may be the reposition and fixation of a markedly retro-displaced uterus, and possibly a plastic vaginal operation to restore the calibre and direction of the vaginal canal. There is one other important reason for repairing cervical lacerations of any great extent, and especially if the lips of the torn cervix are everted. I mean the possible predisposition of such a cervix, if the tear be neglected, to become the seat of an epithelioma. I think that this possibility is indicated by the comparative infrequency of carcinoma of the cervix uteri in nulliparous women, and *vice versa*.

Plastic Vaginal Operations.—The frequency of vaginal and perineal lacerations as the result of childbirth is well known, and only a few years ago it was a common belief that the perinæum played an important part in preventing displacements of the uterus. Even now one sees instances in which patients who are suffering the various discomforts attendant upon uterine displacements of various kinds and degrees, and in whom there is a perineal laceration of greater or lesser extent, have had an operation done to restore the perinæum, while other obvious conditions, such as damage to the pelvic floor, dislocation of the uterus and adjacent parts have been ignored. The result is an operation done and no satisfaction to the patient. That the plastic operation upon the vagina aud perinæum was required is true, but only in combination with other operative procedures, such as curetting, repair of the cervix uteri, and replacement of a dislocated uterus, together with some efficient measure by which the uterus can be kept in its normal anatomical position.

The precise method by which this fixation of the uterus in its normal place is to be attained must be determined upon after a due consideration of each individual case. It was at one time the fashion to shorten the round ligaments in cases of retro-version and flexion, and even in prolapse of the uterus, without making sure that no condition existed to contra-indicate this procedure—such a condition, for instance, as the presence of intra-pelvic peritoneal adhesions. The result was a frequent failure to attain the desired relief. Lately it has been the fashion to adopt some method of suspension or fixation of the fundus uteri to the anterior abdominal wall, the peritoneal cavity being opened to allow of this. The operation is simple and easy to perform, but is, I consider, quite unjustifiable unless there are intra-pelvic conditions, other than the displacement, which necessitate the performance of a peritoneal section. I have knowledge of three instances which occurred comparatively recently, in which ventro-fixation of a dislocated uterus not complicated by pelvic adhesions was performed, and in each case septic peritonitis followed and the patient died. (I may say that this did not happen in my own practice.) A perfect result as regards the reposition and fixation of the uterus could have been obtained without opening the peritoneal cavity.

We are at the present time so familiar with the good results following intra-peritoneal manipulations of all kinds that there is a tendency to unduly minimise the risks of abdominal section. This is wrong, unfair to our patients, and utterly unjustifiable.

When speaking of the operation of curetting the uterus, I omitted to refer to the frequency with which curetting is done in cases in which the pelvic damage has been caused by a double infective salpingitis, resulting in pelvic peritonitis and adhesions, which involve the ovaries and Fallopian tubes. Such a procedure is rarely justified unless as a preliminary to abdominal section for the *removal* of the *cause* of the trouble. In most cases it simply results in failure to improve the condition of the patient, disappointment, and distrust of surgical measures generally.

Digitized by Google

I trust that I have not wearied you by reference to such well-known and recognised conditions, but my reason has been that I wish to raise a protest against ill-judged and often unnecessary operative treatment, and to plead for a fuller recognition (than is, I fear, often shown by us) of our responsibilities as surgeons to our patients.

As before said, similar criticism applies to many other operative measures, such as removal of the appendix, ill-judged attempts at "conservative surgery of ovaries and Fallopian tubes," nasal and pharyngeal operations, etc.

(Read before the New South Wales Branch of the British Medical Association.)

GASTRIC SURGERY.

By R. Humphrey Marten, M.B., B.C. (Cantab), M.R.C.S., L.R.C.P. (Lond.), Adelaide.

It can only be said within the last two decades that surgery of the stomach has passed from the almost experimental to the practical stage, at which it has now arrived, and this in itself renders no apology necessary for bringing the subject before the meeting this evening. It is true that from time to time we have had exhibits of patients who have been operated upon for stomach troubles, and occasional papers on the subject have been read before this Society, such as Dr. Lendon's paper on "Congenital Stenosis of the Pylorus"; but this is the first evening we have so far specially set apart for discussing the surgical treatment of disorders of this most important organ. To show how the treatment has advanced, it is only necessary to refer to the title of Robson and Moynihan's work on "Diseases of the Stomach and their Surgical Treatment," or to the paper by Mr. Fred. Bird, of Melbourne, on the "Surgical Treatment of Dyspepsia," subjects which, if mentioned in the pre-antiseptic days, would have been held up to derision, or their authors looked upon as persons of unsound mind and to be avoided by patients.

Time will not allow of all the branches of stomach surgery being brought up at this meeting, and I propose to deal more particularly with those methods of treatment which can be illustrated by cases occurring in my own practice, but before doing so it is desirable to make a few preliminary remarks.

In the first place, the stomach can be manipulated, opened or resected, without any very great shock, probably no more than in operations on any other important abdominal organ, and in an extensive pylorectomy which I recently performed the shock was really very slight; and in a case of ruptured gastric ulcer the patient was in a far better condition when leaving the table than before being placed thereon. Considering the intimate relation of the pneumogastric and sympathetic nerves with this organ, it is almost contrary to what one would expect; the only point is that, supposing the pylorus be bound down by adhesions, dragging on these disturbs the large sympathetic ganglia and gives rise to more shock than in other situations. Of course, diagnosis of the condition expected to be found on performing operations on the stomach is of the highest importance, and no form of examination, either physical or chemical, should be neglected.

In some cases, for instance, a tumour may be felt at one time and absent at another, probably due to muscular contraction over a gastric ulcer; this occurred in a case of hour-glass contraction of the stomach, and points to the necessity for repeated examinations; and in other cases great help is obtained by placing the patient in the genu-pectoral position for abdominal palpation.

Chemical analysis as to the presence of free hydrochloric acid and lactic acid should always be adopted in cases of uncertain diagnosis. There is no doubt but that in the near future the stomach will be subjected to far more frequent exploratory operations than at present, especially in doubtful cases, and Mayo Robson apparently frequently "button-holes" the abdominal wall under cocain anæsthesia for this purpose. A case in point was one where I explored a hard, irregular swelling in the neighbourhood of the pylorus, which had caused a dilated stomach. It turned out to be a calcified hydatid, and was easily shelled out, giving complete relief to the symptoms; had this been left alone it would have brought about a fatal termination.

Another reason for an early exploration is that if you wait until a large, easily palpable tumour is present you have most probably let the time for a radical gastrectomy in cases of carcinoma go by, and have to content yourself with merely a palliative gastro-enterostomy. If a patient beyond 40 years of age has gastric symptoms and progressively loses weight, an exploration should at once be urged. So far the stomach has not been so frequently explored as in the case of other abdominal organs, but probably in a few years this will be remedied, as has happened with all modern surgical procedures.

I do not propose to deal with gastrotomy for foreign bodies lodged in the stomach or lower end of the œsophagus, as I suppose we are all

Digitized by Google

agreed on the necessity for their removal, or for dilating a stricture of the lower end of the œsophagus where this is possible, such cases being exceedingly rare.

Narrowing of the pylorus from either extrinsic or intrinsic causes, due to simple or malignant conditions, is so common as to require further consideration. In the first place, the pylorus may be congenitally stenosed. I have never myself diagnosed such a case, but Dr. Lendon, as noted previously, read a paper before this Society last year on this interesting subject. With regard to extrinsic causes, in one case it was possible, with a satisfactory result, to divide some adhesions between the pylorus and the gall-bladder in a man who had gradually increasing dyspeptic symptoms, attended with dilatation of the stomach. The only other condition caused by extrinsic non-malignant trouble was the calcified hydatid case. Intrinsic causes may again be simple or malignant; the latter, perhaps, is the most common of serious stomach troubles. Some 13 years ago I showed a man before this Society upon whom I had performed a Loreta's operation for pyloric stenosis, where symptoms had gradually supervened on an attack of hæmatemesis occurring several years previously. The operation afforded complete relief, and the man became so well that he married and became a father, but some few years afterwards he evidently had a recurrence of his ulceration, and developed and died of a subphrenic abscess, a condition which neither Dr. J. C. Verco nor myself recognised at the time, or else perhaps the man would be alive now. Probably Loreta's operation, which was considered to be perfect at the time, as well as Hahn's operation for dilating the pylorus by invaginating the stomach-wall, without opening the organ, are things of the past, and at the present time a pyloroplasty or a gastro-enterostomy would certainly be performed.

In cases of cancer of the stomach, either a gastrectomy (partial or complete) may be necessary, or if such operations are found to be impracticable at the time, relief can be afforded by a well planned gastro-enterostomy; but in all cases wherever possible a radical operation should be attempted, or, in the words of Terrier, the "best form of gastro-enterostomy is done after removal of the pylorus." In cases of extensive adhesions, secondary deposits in the liver or elsewhere, or widespread enlargement of the lymphatic glands, pylorectomy or gastrectomy must give way to gastro-enterostomy, and this only more strongly emphasises the necessity for early operations if we hope to get good results. Some few months ago I showed before the Society a lady upon whom I had performed a pylorectomy for cancer of the pylorus, and up to now the patient is in good health, without the least sign of recurrence. In this case we followed Terrier's advice, and did the gastro-enterostomy after the pylorectomy, although it has been recommended to do the operation in two stages, first a gastro-jejunostomy, followed in a few days by a pylorectomy. In three cases I have performed gastro-enterostomy with the aid of Murphy's buttons for malignant pylori, all successful in the way of relieving symptoms, but, of course, in due time the patients died of the original malignant growth.

In one case the late Dr. Way and myself started to do a gastro-enterostomy, but the stomach was so involved we were unable to complete the operation. We might have stitched the jejunum to the abdominal wall and given some relief to the constant vomiting, but it was in the early days of stomach surgery, and we were unfamiliar with the procedure. With regard to the use of Murphy's buttons, in any future case I should use simple suture, and a posterior gastro-enterostomy in preference to an anterior operation, and although Robson's bobbins might be of assistance, it is possible to make a more satisfactory opening by means of simple suture alone; in the latter you are not limited to the size of your opening, which is of great importance when you are dealing with a very dilated stomach. No doubt the operation by means of Murphy's button is very much more rapid, and is useful in special cases where time is a consideration, but the method by suture is probably far safer, and you have no anxiety as to the ultimate destination of the button. The anterior gastro-enterostomy is the easier operation of the two, but does not give such good results, and is more liable to lead to a "vicious circle"; it has the advantage of being done extra-abdominally, instead of down in a deep hole, but if in the posterior operation the preliminary precaution of placing a good-sized sandbag in the dorso-lumbar region of the spine is adopted, the depth at which the operation takes place is greatly modified, and proved of great assistance in the last gastro-enterostomy I performed.

The next point is the treatment of gastric ulcer. Medical means will cure most cases of acute ulcers, but these are the cases that generally lead to perforation, and if such an accident happens the sooner laparotomy and suture of the hole in the stomach is performed the better, and, of course, the peritoneum must be thoroughly cleansed, especially in those situations where a subphrenic abscess may form. I reported before this Society some few years ago the first case of recovery in Australia

Digitized by Google

from ruptured gastric ulcer treated by abdominal section and suture. The operation was performed six hours after the catastrophe. I have only seen one case since, and as the rupture had occurred six days before, operation was out of the question, the patient dying a few hours after being seen in consultation. As a general rule, Robson recommends that the stomach should not be washed out before operation in cases of gastric ulcer, although the mouth and teeth should receive the greatest attention; but in greatly dilated stomachs where the contents are foul this procedure should never be neglected. But I might digress here to mention one case where I adopted lavage in a dilated stomach, the patient dying of acute tetany in a few hours. Gastric tetany in cases of dilated stomach is a well-recognised condition, and Robson and Moynihan recommend gastro-enterostomy in such cases, and report promising results. This appears to be the rational method of treatment, as no doubt the symptoms are produced by the absorption of poisons from the stomach. A large posterior gastro-enterostomy which allows of free drainage of the stomach is probably better than all expectant treatment, and in such cases a Robson's bobbin might be useful, as producing at once a permanent opening to allow the contents of the stomach to pass along; also at the time of the operation the stomach can be "milked" dry and washed out.

In cases of chronic gastric ulcer where medical treatment has been of no avail, gastro-enterostomy is always a certain cure. It apparently acts by giving physiological rest to the stomach and especially the pylorus, and by means of drainage prevents frequent movements of the organ. In a case occurring in my practice a few weeks ago, an extremely anæmic man, aged 37 years, who had last year been under treatment for some months for dyspeptic troubles following a profuse hæmatemesis, suffered a relapse and again had profuse bleeding, followed by most acute gastric pains, which entirely prevented sleep for nights without the aid of large doses of morphia. The patient consented to an operation, and a posterior gastro-jejunostomy was performed by means of simple suture. The pain daily became less, and now the patient is convalescent and is about to return to his usual employment. The good results seem, according to Robson, to be permanent.

With regard to the after effects of gastro-enterostomy, regurgitant vomiting and contraction of the opening are the worst features; the cause of the former is doubtful, and probably the latter always occurs to a certain extent, and emphasises the necessity for a large opening.

In cases of gastrorrhagia, if the hæmorrhage be profuse and the patient is likely to die, in several cases the stomach has been opened and the bleeding vessel secured with good results. The difficult point in such cases is to decide when to operate: Robson says after the second attack, but in cases of capillary oozing or venous hæmorrhage from a cirrhotic liver, operation is of no avail.

One more word about chronic gastric ulcer. It has recently been shown that good results can be obtained by infolding the ulcer and Lemberting the peritoneum and muscular coats. In one case of hour-glass contraction of the stomach, I unfortunately had to show the specimen instead of the patient. It was the case of a young married woman who had suffered from severe gastric symptoms for some years, only having relief when pregnant; her sickness became so intense that she never took a single mouthful of fluid without having a receptacle at her side, into which she could immediately vomit. With the help of Dr. Poulton we explored the stomach and found a lump at the pylorus and a small, as we thought, stomach; we joined the jejunum on to this by means of a Murphy button, but obtained no relief to the distressing symptoms, and the patient died in about ten days. At the post-mortem it was found that a large, dilated portion of the stomach was tucked away in the left hypochrondriac region, and the stomach was contracted in the middle. This, of course, explained the non-efficiency of the gastro-enterostomy. This same mistake has happened to men of world-wide repute, but it gave me a lesson by which, if I ever again get the chance, I mean to profit by. One point which is always impressed on my mind is that we could never distend the stomach with CO_2 gas; the acid powder in solution was always vomited before the alkaline could be swallowed.

In cases of great distension of the stomach from atonic dyspepsia, the size of the organ has been treated with good effect by gastroplication, or suture of the stomach-wall, to diminish its cavity. In cases of gastric fistulæ, if they be between the stomach and other internal organs, such as the colon or gall-bladder, good results have followed operations. In two cases of gastric fistulæ, opening externally, which I reported before this Society, a fatal termination followed in both. In one I opened a large subphrenic abscess, in the left hypochondriac region, and through the opening any food taken by the mouth immediately escaped. The other case was an abscess in the lesser omental cavity; food escaped through an opening at the umbilicus, and the patient, an old woman, gradually sank, worn out by suppuration.

Digitized by Google

My experience of stomach surgery is that the cases do very well, and the only ones I have lost have been the hour-glass contraction and the two gastric fistulæ; the latter were unavoidable, the former was due to my own fault. As mentioned previously, in future I mean to use mainly simple suture without artificial aids.

The after treatment is simple. Feed at first by means of nutrient enemata and an occasional large injection of tepid water; you can give by the mouth teaspoonfuls of water with a little brandy within a few hours, and gradually get on to stronger food, of course depending on the nature of the lesion treated as a guide.

In conclusion, I need hardly say how impossible it is to write any paper on gastric surgery without availing oneself of the brilliant work of Robson and Moynihan and their scattered papers throughout the medical journals, and I have, as you will observe, made free use of them.

(Read before the South Australian Branch of the British Medical Association.)

NOTES ON GASTRIC SURGERY.

By W. Anstey Giles, M.B. & C.M. (Edin.), Adelaide.

At the request of our president I have great pleasure in contributing a few remarks to the discussion on the surgery of the stomach about to take place this evening. This branch of surgery is so full of interest, embraces such a variety of cases, and of late years has made such extraordinary advances that the subject must commend itself to the members, who will not be backward about producing their individual experience for mutual advantage.

The most encouraging and successful case I have had lately is one of chronic gastric ulcer complicated by perigastric adhesions and hour-glass contraction. With your permission I will briefly refer to the notes recorded.

E.M., *æt.* 35, single, domestic servant, was admitted into the Dorcas ward, Adelaide Hospital, under my care, on the 12th June of this year. She complained of pains in the epigastric region, frequent attacks of vomiting, severe hæmatemesis, and great weakness.

About ten years ago, after being for some months a martyr to indigestion, she one day had a violent fit of retching, and brought up about two pints of what appeared to her to be bright pure blood. At the same time gastric pain was very pronounced. She was prostrated by this seizure, and was obliged to keep to her bed for some weeks. For six years after this she had constant indigestion, often associated with vomiting, which sometimes was hæmorrhagic in character, but she continued at work throughout the whole of this period. Then a second attack, similar in severity to the first, kept her in bed for several weeks, and about the same quantity of blood was lost. Persistent ill-health followed, the gastric pain hardly ever ceased, and every two or three weeks she vomited blood in varying quantities, but never so freely as on the two special occasions mentioned. She never attempted to take solid food, could only work spasmodically, and her life became a positive burden. She was sent to me by Dr. Ewbank. When I first saw her she was anæmic, somewhat emaciated, and had an anxious, careworn expression. She said she last vomited blood (about a pint) three weeks previously. She could not lie long on the left side because of the pain such a position produced, but could occupy the recumbent attitude with comparative comfort. Her heart and lungs were quite healthy. The urine contained neither albumen nor sugar.

On June 17th I opened the abdomen by an incision extending from the ensiform cartilage to the umbilicus in the midline and exposed a fold of great omentum looped back over the anterior wall of the stomach and firmly attached to the under surface of the liver and to the lesser omentum. When this was separated the pyloric end of the stomach was revealed, and a well marked hour-glass contraction was recognised in the lower third of that viscus. The constriction was not so exaggerated as to suggest a gastro-gastrostomy or a gastrectomy, and I decided to perform gastroplasty as practised and devised by Heineke and Mikulicz with such gratifying results. My original intention was to liberate any perigastric adhesions present as freely as possible, and complete the operation by a posterior gastro-jejunostomy, but I altered my technique when the stomach was exposed.

I made an incision measuring about 5 in. in the long axis of the viscus, dividing all the coats, and then could thoroughly explore the mucosa. No ulcer was visible, but a dense deposit of cicatricial tissue could be distinguished in the posterior wall and at the greater curvature where the constriction occurred. The ends of the incision were brought together, and when the wound was closed my line of sutures ran from the lesser to the greater curvature. The only trouble after the operation was very obstinate vomiting of dark green fluid, which escaped in great quantities and would not yield to any treatment until after the eighth day, when it gradually ceased.

Digitized by Google

Constant lavage was practised. Her temperature never rose above 100 deg. F., she had a good pulse throughout, there was no abdominal distension, and after the first 24 hours the bowels acted daily.

On July 21st she was discharged, when she could enjoy and digest comfortably a mutton chop and potatoes. She had not been able to take any solid food without pain and vomiting for over three years, and I can readily believe the gratitude she expressed, when she discovered that a meal of meat and vegetable produced no distress, was genuine. When she entered the hospital her weight was 6 st.; on the 18th inst. she called at my consulting rooms, looking bright and well, and registered 7 st. 7 lb. on my scales. Her appetite is good, she can take ordinary food without discomfort, and has not vomited or experienced pain since her discharge from my ward. You may say that these are early days—well, so they are,—but when I read of patients who have been under observation for six years after pyloroplasty and gastroplasty without any return of their trouble, I conclude that we may reasonably expect a permanent cure to follow this operation in such cases.

As I write, my thoughts revert to the first case of Loreta's operation performed here by the late Dr. Gardner, about 14 years ago, at which I assisted. The patient had a constricted pyloric orifice and dilated stomach, due to cicatrised ulcer, with the usual distressing symptoms. In consequence of the treatment adopted, all vomiting and gastric irritation ceased, her appetite became excellent, she gained flesh rapidly, and 12 months afterwards when I last saw her she was in perfect health. I remember well the great satisfaction this case afforded us, but subsequently results were not so happy and lasting, and the operation of pyloroplasty, introduced by Heineke and Mikulicz is preferred, as being more scientific and likely to be followed by more permanent relief. Could the obstinate vomiting, which occasioned us much anxiety in the after treatment of my patient, be caused by some condition allied to that which prevails in acute dilatation of the stomach? Acute dilatation of the stomach may immediately follow some abdominal operation. The cause is probably disturbance of the nervous system, which gives rise to paralysis of the muscular walls and to excessive secretion into its cavity. Vomiting appears to be a constant symptom, and usually large quantities of brownish or greenish fluid are thrown up. The general symptoms are those of collapse, the pulse is small and very rapid, the respirations are frequent and the temperature low. Certainly my patient had no peritonitis, and I am inclined to attribute the intractable vomiting to some such disturbance, only in modified degree.

Professor Watson informs me that he has seen two cases of acute dilatation of the stomach. The first came under his observance in December, 1900. A man, *æt.* 40, after eating heartily of preserved meat, died 13 days later. After washing out the stomach and trying general remedies for three days, a posterior gastro-jejunostomy was done, but this failed to relieve, because, although the mechanical factor was removed, the stomach passed on its toxins into the intestines. In such another case he would not advise gastro-jejunostomy. If, after thorough lavage with saline solution or weak iodine solution, elevating the lower end of the bed to relieve tension on the mesenteric vessels, and intravenous saline injection to counteract the tarry state of the blood produced by the inordinate drainage into the stomach of its (the blood's) fluid elements, then he would not hesitate to advise jejunostomy as the best remedial measure. This should be done for two reasons:

(1) To feed the patient.
(2) To prevent the stomach toxins from being passed on and absorbed by the intestines.

The second case he met with also died. An incision was made below the umbilicus, in the belief that peritonitis was present. The stomach, enormously dilated, presented. It was opened, relieved of its contents, flushed out, and sutured. For about 12 hours marked benefit resulted, but afterwards vomiting reappeared, and the patient sank rapidly.

Probably this complication of cœliotomy is not so uncommon as we imagine, and I am inclined to believe that in some of my cases this may be the just explanation of symptoms which puzzled me greatly.

Another case worthy of notice was sent into my male ward in the Adelaide Hospital by Dr. Hayward in November of last year.

He was a very anæmic, debilitated man, *æt.* 53, who had lost flesh steadily for some months, and suffered constantly from pain and vomiting after food. A lump about the size of a small orange could be easily felt in the epigastrium, to the left of the midline, which was movable and painless on palpation. The diagnosis made was carcinoma of the pylorus and an exploratory operation advised, with a view to pylorectomy, if possible. A very large mass was exposed arising from the pylorus and densely adherent to neighbouring structures. On account of the man's feeble condition and the heroic character of the operation involved,

Digitized by Google

I determined to content myself with a posterior gastro-jejunostomy on that occasion.

This was accomplished without any difficulty by Von Hacker's method, and as the stomach was considerably dilated an unusually free opening was established. The man was allowed to take brandy and water and gruel by the mouth next day, complained of no discomfort, and there was no vomiting. His general health improved rapidly, he took his nourishment with relish, and was stronger and more cheerful than he had been for months. When the situation was fully explained to him he was most anxious that an attempt should be made to extirpate the growth, and on December 24th the abdomen was again opened, when a distinct reduction in the size of the tumour was demonstrated, doubtless due to the free passage of the stomach contents through the artificial opening relieving the pylorus of much irritation. All adhesions were gradually separated and divided, and the removal of the pyloric end of the stomach was completed, together with the cancerous mass. A few enlarged glands intimately connected with the portal vein had to be left behind. Unfortunately, the man died on the tenth day; but if a good result is to be obtained in such an advanced case as this, the method I practised of dividing the operation into two stages should be adopted. By establishing a free channel between the stomach and intestine as a preliminary measure, the patient may be properly nourished and his general condition improved, thereby enabling him the better to resist the shock of subsequent radical interference.

I prefer to practice gastro-enterostomy by simple suturing rather than make use of mechanical aids such as Laplace's forceps, Mayo Robson's bobbin, Murphy's button, etc., nor do I think it necessary for the safe performance of the operation to clamp the intestine. If the sutures are inserted with due precision and care, liquid nourishment may be given next day without increasing the risk.

The subject is so vast that under these circumstances one can only briefly refer to a few points of practical interest, and I am afraid I have already trespassed too much upon your time and good nature.

(Read before the South Australian Branch of the British Medical Association.)

An auxiliary league has been formed in connection with St. Vincent's Hospital, Melbourne, with the object of raising sufficient funds to complete at least the first section of the new hospital. The names of all the members will be engraved on a brass tablet to be placed in the main hall of the new structure, and the names of deceased relatives in memory of whom donations are given will be recorded on a marble tablet A children's branch of the league has also been formed.

CLINICAL AND PATHOLOGICAL NOTE.

A CASE OF DIFFUSE (ACRO-) SCLERODERMA.

A WOMAN, 46 years of age, who presents a fairly typical example of what Jonathan Hutchison calls acro-scleroderma, a diffuse variety affecting chiefly the face and clavicular regions, the hands and forearm, with much less involvement of the lower extremities, recently came under my observation.

The onset of the disease was acute. In February last she was out for some hours on a very hot day, and became very heated and very tired. Her face, hands and forearms, feet and legs, became swollen. Later on she experienced rheumatic-like pains with limitation of movement in the joints of the lower jaw, hands, knees, and ankles. She also had night-sweats and attacks of rapid breathing, but these symptoms have now ceased. The hide-bound condition gradually increased to its present state. The face is mask-like, the mouth can only be partially opened, the skin over the clavicle and upper sternum is adherent. The fingers are bent and almost fixed, and on two knuckles are partially-healed ulcers. The scleroderma is continued up unto the forearm, when it gradually emerges into the normal skin. The skin of the parts affected is hard, smooth, somewhat pigmented, and, during cold weather, marbled. The clinical picture and history suggest a tropho-neurosis, with affinities in Raynaud's diseases, erythromelalgia, rheumatoid arthritis, and, perhaps, myxœdema and Addison's disease.

The treatment has been directed to the relief of symptoms. Massage with olive oil has given the best results. The patient is now taking thyroid.

FRED. J. T. SAWKINS,
M.B., Ch.M. (Syd.).
Sydney.

REVIEWS AND NOTICES OF BOOKS.

MANUAL OF PRACTICAL ANATOMY. By D. J. Cuningham, M.D., etc., Professor of Anatomy in the University of Edinburgh. Edinburgh and London: Young J. Pentland. Sydney: Angus and Robertson. Vol. I.

As the third edition of this manual has been considerably improved, it is needless to say that it is likely to long remain the favourite text-book of the dissecting room. The diagrams especially have been improved in quality and greatly increased in number. The student will view with pleasure the adoption of colours, whilst the placing of the names around each diagram, although, perhaps, ugly, is certainly a much more useful arrangement than the plan frequently adopted in the older editions of using reference letters which were often difficult of discovery.

There appear to be few faults, typographical or anatomical, in the text. Diagram 86 is given as right knee-joint instead of left, and in diagram 141 superior hæmorrhoidal artery is marked inferior. The ilio-psoas

Digitized by Google

muscle for some reason is included amongst the internal rotators of the hip-joint. It is not in our experience usual to find the interosseous branches of the deep palmar arch pass downwards in front of the interosseous space, but in front of the metacarpal bones in the narrow intervals between the interosseous muscles of contiguous spaces.

The author still retains the description of pelvic fascia as given so fully and clearly in former editions. With regard to the prostate gland, he states that within the capsule formed by pelvic fascia and subjacent to the veins, a thick sheath forms an immediate investment for the gland. It is interesting to note that Professor Cuningham does not appear to consider it possible to introduce a trocar and cannula into the bladder per rectum below the peritoneal reflection without wounding one or other vas deferens. He ascribes to the use of formalin a great improvement in our knowledge of the topography of the viscera.

Many of us, no doubt, retain a great admiration—almost affection—for some old dissecting manual, but there can, we think, be hardly any doubt that this book is the most lucid on this subject in the English language. A.A.P.

THE AMERICAN YEAR-BOOK OF MEDICINE AND SURGERY. Edited by George M. Gould, M.D. In two volumes—Medicine. Philadelphia and London: W. B. Saunders & Co. 1903.

In the compilation of the volume on Medicine some alterations have taken place in the *personnel* of the staff of contributors; but in all respects the work maintains the high standard reached in former years. One great advantage of this work is its subdivision into different sections, so that at a glance the reader can obtain the information desired without having to turn to several different parts of the book. This work is also valuable from the inclusion in it of good reviews of work done in the more scientific departments of medicine, such as pathology and bacteriology, physiology and physiological chemistry, public hygiene and preventive medicine. The work is got up in Saunders' best style.

THE AMERICAN YEAR-BOOK OF MEDICINE AND SURGERY. Under the general editorial charge of George M. Gould, M.D. Surgery. Philadelphia, New York, London: W. B. Saunders & Co. 1903.

The section on General Surgery occupies about half the volume of close on 700 pages. As the book is a digest of articles drawn from journals, monographs and text-books of the leading American and foreign authors and investigators, it does not profess to contain any original contributions. It serves, however, to bring before the reader a synopsis of the principal papers that have been published during the previous year, some of them being well illustrated, for instance that of Howard A. Kelly on the "Best Method of Incising, Searching, and Suturing the Kidney," and Downey's cases of saddle-nose treated by the injection of paraffin. In the section of Obstetrics and Gynæcology there is little that is new to readers in this quarter of the globe. This, however, is not the fault of the compiler, but rather the result of an unproductive year in the literature of the subject. There are some interesting statistics regarding the decrease in fertility in American women. In the eighteenth century the proportion of sterile women was 2 per cent., at present it is about 22 per cent. The fecundity, likewise, has retrogressed in the same period from five children to less than two per family. The writer (Engelman, of New York) attributes the decrease to artificial measures taken by the women; there is no increase of primary sterility from gonorrhœa, utero-ovarian disease, and the like.

MANUAL OF MEDICINE. By T. K. Monro, M.A., M.D., Physician to the Glasgow Royal Infirmary, and Professor of Medicine in St. Mungo's College. London: Baillière, Tindall & Cox. 1903. Price, 15s net.

This book is primarily intended for students. The author believes that there is plenty of room for such a manual, the book being intermediate in size between the smaller text-books and the larger ones, of which Osler's book may be taken as the type. There is no doubt that the author has succeeded in producing a book that is at once lucid and fairly complete. His description of the different diseases is clear, and sufficiently detailed for most students. The style in which he writes is easy and clear. The author is evidently imbued with the value of the modern advances in the practice of medicine, *e.g.*, with the value of the leucocyte count in the diagnosis of typhoid fever and other diseases. On the other hand, the description of the different forms of leucocytes present in the blood in health and disease might, with advantage, have been much fuller; it is much easier for students to get clear ideas on this obscure and difficult subject if the staining reactions of the difficult types of cells are explained in detail; too great brevity in description often makes a subject difficult. On the whole, the book may confidently be recommended to students who like a short book or who find the bigger books, such as Osler, more than they can master. J.M.G.

THE TASMANIAN FLORA. By Leonard Rodway, L.D.S. (Eng.), Government Botanist of Tasmania. Royal 8vo; pp. 19, 320. Hobart: Government Printer. Price, 7s.

This addition to the Australasian State floras is of interest to readers of this journal, if only because of the fact that its preparation has lightened the professional cares of a busy practising dentist, whose appointment of Government Botanist is an honorary one.

The work contains fifty lithographic plates of rare or interesting plants from drawings by the author. The author follows the classification of Hooker and Bentham, which is indeed that of our national "Flora Australiensis." Some botanists might wish that some of the more modern classifications (*e.g.*, that of Engler and Prantl's Planzenfamilien) might have been, in part, introduced; but loyalty to Bentham and Hooker has some special practical advantages in a work like this. The descriptions are for the most part condensed, and cognisance is taken of weeds and some other introductions. The number of species found in the island does not appear to be stated; there are, however, 63 orders of Dicotyledons, 26 of Monocotyledons. Of the Gymnosperms, the Cupressaceæ (Cypresses) and Taxaceæ (Yews) are dealt with, as are also the Vascular Cryptogams. A list of the Cellular Cryptogams from the pen of the author would be very useful.

The present flora is by no means a mere compilation. The difficult process of condensation appears to have been well done, and the work contains a number of new species by the author. The Tasmanian flora has much in common with that of the highest southern ranges of New South Wales, being especially marked in the case of Mount Kosciusko. In fact, Mr. Rodway's work is indispensable to our botanists, but to visitors to the beautiful island-State, and particularly to residents, the "Tasmanian Flora" will be the means of advancing the study of botany in a marked degree.

The work is well printed, but a greater variety in the typography would have been a practical convenience to the working botanist. J.H.M.

Digitized by Google

THE AUSTRALASIAN
MEDICAL GAZETTE.

SYDNEY, 20TH OCTOBER, 1903.

CONTRACT MEDICAL PRACTICE.

THE question of contract medical practice and the conditions under which medical men should take lodges is not only a burning one in Australia, but for some time past has engaged the attention of the profession in the old country, and various suggestions have been made from time to time with a view to arriving at some more satisfactory arrangement than that which holds at present.

We repeat again what we have said on previous occasions, that the policy of the New South Wales Branch of the British Medical Association is in no sense of the word "to smash up the Friendly Societies." We have always recognised these societies as of immense value to the working classes, providing them with medical benefits and sick pay in their time of need; and no single member of the medical profession is in the least degree anxious to deprive deserving persons of such benefits. In many cases the relations between the lodge surgeon and the members of the lodge have been highly satisfactory, and these societies have been able to retain the services of their medical officers for many years. In other cases, however, especially where the societies have combined together to form Institutes with a view to reducing the rate of remuneration of the medical officers, and at the same time increasing the amount of work the medical officers may be called upon to do, these relations have not been so satisfactory, and it should hardly be a matter of surprise if the profession should recognise that some stand should be made against such Institutes.

When speaking at a recent luncheon in connection with the North Sydney United Friendly Societies, Mr. KIDD, the Minister for Mines and Agriculture, referred to the strong position which the Friendly Societies had attained in this State. But we ask: How have these societies been enabled to attain their present prosperous condition? And the answer is, by the services of their medical officers. In other words, by paying the medical officers a, comparatively speaking, small remuneration, the societies have been enabled to secure large additions to their membership and to amass large sums of money. It is right and proper that the Friendly Societies should be in a sound financial position, that they should be able to meet all their obligations for sick pay, funeral donations, etc., and this they should be able to accomplish if they are conducted on strict actuarial lines. But we maintain that the medical officers should receive the full amount paid by the members for medical attendance, less the amount required for medicines (in cases where the medicine is dispensed by chemists) and a small amount for necessary expenses in connection with the management of the funds. In the case of the Medical Institutes this is not so, and by paying the medical officers by salary these institutions are enabled to save a large amount every year out of what should have been paid to the medical officers if the latter had received the usual rate of remuneration for attendance on lodge members per member per annum. To this extent, then, the medical profession is sweated every year, while the funds of the societies mount up by thousands of pounds.

But to remedy the existing state of "unrest" which exists between medical men and lodges it is first of all necessary to get rid of the spirit of antagonism, for each to recognise that the present state of matters is not satisfactory to either party, and to be prepared to meet amicably in conference and discuss in this spirit matters of vital interest, which, we believe, could be satisfactorily settled. But here we must definitely assert that we only

Digitized by Google

recognise as legitimate claimants on the charity of the profession those old-established Friendly Societies which have been founded on a purely philanthropic basis, and which are amply sufficient to meet all the needs of that class in the community which are deserving of medical attendance at reduced rates.

PRESERVATIVES IN FOOD.

A SELECT committee of the Legislative Assembly of New South Wales is at present taking evidence on the question of the use of preservatives and colouring matters in foods. The Board of Health in the discharge of its onerous duties as the custodians of the public health, under the powers conferred upon it by the Public Health Act, some six months ago drew up certain regulations which practically prevented the use of all kinds of preservatives in foods, and for this action the Board of Health and its President have been congratulated by the *British Medical Journal* as having set an example to the Local Government Board in England. It is therefore highly desirable that the Board of Health should be supported by the medical profession in their endeavours to secure a pure food supply.

The arguments which have been used in favour of the use of antiseptics, or rather which have been used to show that the use of antiseptics in foods does no harm, are somewhat fallacious, and it behoves us to examine the evidence upon these points very carefully before committing ourselves to a definite opinion one way or the other. If antiseptic substances which are in themselves poisonous are allowed to be used in the manufacture of articles of food, then we shall be constantly taking into our bodies small quantities of these foreign substances, which at any rate can do no possible good to the system, even granting that a minute dose of one antiseptic in one article of food could be proved to be innocuous; and if several articles of food are adulterated with antiseptics, then in the course of 24 hours we shall take in more than a minute, harmless dose—in fact, an amount which must act injuriously on the system. The ill effect of these substances may not be apparent for some years, for we know how slow and insidious may be the action of some deadly poisons, as arsenic and mercury, when taken in minute doses at repeatedly short intervals; and it would be as absurd to say that no harm could possibly result from the ingestion of small quantities of boric or salicylic acids in the small amounts used in preserving foods as to say that no harm results from the use of minute quantities of arsenic or mercury.

Moreover, if antiseptics are used in such small quantities as are said to be quite harmless to the system, we have to remember that these agents will be introduced into the bodies of persons of all ages and in all conditions of health and sickness, and the young infant who is suffering from digestive troubles will receive just as large, and perhaps a much larger, dose of a chemical poison as an adult in good health. If the stringent regulations of the Board of Health are not adhered to, then such a state of matters must inevitably ensue. Moreover, if they are used in such small quantities as to be practically harmless to the human body, then they certainly cannot be of real efficacy in preventing the decomposition of food. They may possibly be efficacious in delaying the development of the putrefactive odour, and yet not be efficacous in preventing the formation of poisonous chemical compounds; consequently food which perhaps has no putrefactive odour, and yet has begun to putrefy, may be taken, and serious results ensue—results which would have been avoided if no antiseptic had been used and the putrefactive odour had been allowed to develop.

To sum up the position we may say it is a truism that for the maintenance of the good public health a pure unadulterated food supply is an essential factor, and that if antiseptics are allowed in foods this cannot be attained.

Digitized by Google

Further, that the use of these agents is unnecessary is proved by the fact that some manufacturers have been able to carry on their work effiiciently without them; and although these regulations have now been in force for the last six months, only one company has protested against the regulations regarding milk, and one trade, that of the manufacture of temperance drinks, has protested against the regulations bearing upon the manufacture of cordials.

THE MONTH.

The N.S.W. Branch of the British Medica Association and the Women's A.N.A.

At the request of the Women's Australian Natives' Association, the Council of the N.S.W. Branch of the B.M.A. agreed to receive a deputation to discuss with them the question of medical attendance on their members. At the time appointed the deputation from the Women's A.N.A. arrived, supported by representatives of all the daily newspapers in Sydney, anxious to report the discussion. The members of the British Medical Association Council naturally disapproved of the presence of reporters at a meeting which was essentially of a private character, and the deputies of the Women's A.N.A., finding themselves unable to obtain a good free advertisement of their claims, retired to pour forth their spleen to the reporters and to make some entirely false statements. The British Medical Association has nothing whatever to hide; it has taken up no false position which it is unable to defend before those capable of judging; but we do, and shall continue to, object to our names and our business being dragged before the public in the columns of the daily press to be discussed by those who are entirely ignorant of the aims and objects of the British Medical Association, and to be credited with statements and actions of which we are entirely innocent In the attitude we have assumed in regard to this new organisation we are acting in the best interests of the women doctors themselves and in the interests of those organisations which have a legitimate claim on the medical profession, male and female, in this State, namely, the Friendly Societies, to whom these Australian Natives' Associations are as much enemies as they are to the medical profession. In refusing to lay their claims before the representatives of the British Medical Association, the Women's A.N.A. have cut themselves off from all hope of a reconciliation, and may as well disband their association at once.

Use of Antiseptics in Food in New South Wales.

Under this heading the *British Medical Journal* of August 15th, 1903, refers in its editorial columns devoted to public health matters to the regulations regarding mixture of antiseptics with food which recently came into force in this State. After describing the general tenor of the regulations, the article concludes as follows: "It is clear that the board has exercised great care and discretion in issuing its regulations. Acknowledgment is made of the use made of the report of the Departmental Committee of the English Local Government Board, and it is pointed out in a semi-official document that those who, in respect of that report, have fixed their attention on the formal recommendations with which it concludes have but an imperfect notion of the opinions and advice the committee really entertained and gave. Thus, while the English Local Government Board will probably not adopt similar regulations based on its own report for several years to come, the Board of Health of New South Wales has promptly acted in the interest of the public health in a manner on which its responsible advisers can be heartily congratulated." We also congratulate Dr. Ashburton Thompson and the Board of Health in having secured the approbation of so high an authority in matters of public health, and in having thus raised this State as an example to the old country to follow in this important question.

"Bloodless Surgery."

The news contained in the somewhat sensational cablegram conveying the report of the New York correspondent of one of the London newspapers on the disastrous termination of some cases of congenital dislocation of the hip operated upon by Dr. Lorenz in America some months ago, would not surprise anybody who happened to be well informed on this subject. Indeed, this blazoning forth of the failure of these operations is but a fitting sequel to the scandalously public manner in which some of them were performed. Whether Dr. Lorenz was the victim of circumstances in demonstrating his methods in such a public manner we know not; but it is clear that he will now pay the penalty of his huge advertisement, because, for a time at all events, his operation must be discredited. When the sensation was at its height it was pointed out by those best

Digitized by Google

qualified to speak that only a small percentage of "real cures" could be expected from the bloodless method, and that the method was not altogether free from risk. In the discussion that has just taken place at the annual meeting of the British Medical Association at Swansea on this subject, the conclusions arrived at are: "That in any case the chances of a true cure by the bloodless method are not very great." That the Lorenz method of dealing with these cases of congenital dislocation of the hip is a distinct advance, every unbiassed person will allow. In a large number of cases, especially in older children, no good can come of it; but since, in younger children, there have been some brilliantly successful results, it would be foolish to abandon a procedure from which much good is likely to accrue in carefully selected cases because it happened to fail in America under circumstances that precluded selection.

Antiseptic Surgery in the Eighteenth Century.

Dr. Angas Johnson, of Adelaide, sends us the following note which occurs in Percival Potts's chirurgical works, vol. i., p. 351, published in 1808:—"The Baron Van Swieten, writing as many others have done, that is, theoretically, on surgery, advises us in the case of very bad compound fractures, which may most probably require amputation, to defer operation until we have tried the force of *antiseptic fomentation*, and applications of like kind, for two or three days; and this opinion and advice he builds, in some measure, on a remarkable case of La Motte, in a seemingly desperate case of a man's leg smashed by the wheel of a heavy carriage. That La Motte's patient escaped I make no doubt, because he has said so; but the surgeon showed much more rashness in attempting to save such a limb than he would have done in the amputation of it; the operation would have been the more justifiable practice."

The Friendly Societies in New South Wales.

Speaking at a luncheon in connection with the North Sydney United Friendly Societies recently, Mr. Kidd (Minister for Mines and Agriculture), in replying to the toast of "The Ministry," said that he did not think the people knew there were over 1000 friendly societies and branches in the State, and that the expenditure for sick pay and funeral expenses was more than £100,000 per annum. The funds of the societies exceeded £700,000, and there was a membership of 80,000. The Government realised the manifold defects of the Act of 1873, which had done much to hinder the progress of the societies in New South Wales, and they took occasion in 1899 to introduce an Act which would be better calculated to foster the useful growth of the societies. When the Act came into operation it was found that in some ways it could be extended and improved, and accordingly the Amending Acts of 1900 and 1901 were introduced by the Government. The existing law made considerable demands upon the societies, but it was necessary in order that their financial soundness might be assured. As the law now stood a registered society could have every confidence in the stability of its position, and in other directions the law conferred advantages upon the registered societies.

Prevention of Consumption in South Australia.

Last month a meeting of prominent citizens was held in the exchange room of the Town Hall, Adelaide, when it was decided to form a South Australian branch of the National Association for the Prevention of Consumption. The Mayor of Adelaide and Drs. Gault and Jay were the moving spirits of the meeting. It was explained that the work of the branch would be educational in character, and would be devoted to the wide dissemination of knowledge on the means that could be taken for guarding against the scourge. The membership subscription was fixed at a modest 5s a year, which carries with it a supply of literature sent out by the English association. Dr. Gault said it was reasonable to expect that in another quarter of a century consumption would be a very rare thing, and all the speakers predicted generous support for the branch from the public. Lord Tennyson has consented to become patron of the branch, and Sir George Le Hunte president, while a strong committee was appointed.

The Maintenance of Sanatoria for Consumptives.

We understand that some considerable difficulty is being experienced by the committee of the Queen Victoria Home for Consumptives in New South Wales in securing sufficient funds for the maintenance of the Thirlmere Hospital and the Wentworth Falls Sanatorium. We would suggest that an effort be made to secure contributions from the friendly societies and from large business firms. The chairman of the Jessie Brown Trust, which controls the Kalyra Home for

Digitized by Google

Consumptives in South Australia, recently received a communication from the Adelaide secretary of the A.M.P. Society in the following terms:—"You will, I am sure, be pleased to learn that my staff is making up a sum of 24s 6d monthly, to be ultimately given to your Kalyra Home. Our present idea is to hand over £10 at a time, as our subscriptions accumulate to that sum. We hope, of course, we shall never need to avail ourselves of the benefit of the home for any of our staff; but we understand we can at any time nominate a patient to receive this treatment for a period equivalent to the extent of our subscription on the basis of a charge of £1 a week. I may add that the subscriptions are being given willingly and spontaneously, and that your association with the home increases the pleasure we feel in aiding to some small extent such a deserving institution."

Inspection of Private Hospitals.

In 1901 the Premier of New South Wales, Sir John See, as a result of representations made to him by the Board of Health, gave instructions for certain clauses to be inserted in the Public Health Act Amending Bill with a view of providing for the registration and inspection of private hospitals. This action was taken in consequence of Dr. Ashburton Thompson ascertaining, as the result of a personal inspection, that some private hospitals were not properly kept. The bill to amend the Public Health Act has not yet been introduced, and the Board of Health has recommended that the clauses referred to should be embodied in a separate measure. If the state of public business permits, the measure will be introduced, as it is considered the members of both Houses will approve of legislation which will secure the effective supervision of private hospitals.

The Cyclopædia of New South Wales.

The Council of the New South Wales Branch of the British Medical Association, at its last meeting, decided that in accordance with Article 37 of the Articles of Association of the Branch, no member can be a party to his portrait and biography appearing in the "Cyclopædia of New South Wales," which is now in course of preparation.

The Director of Kew Gardens has communicated to *The Times* the text of a report made by Dr. Prout, the principal medical officer of Sierra Leone, from which it appears that the high expectations formed of the so-called "mosquito plant" are baseless. Unfortunately, Dr. Prout's experiments show that mosquitoes neither avoid the plant nor are killed by it.

BRITISH MEDICAL ASSOCIATION NEWS.

PROCEEDINGS OF AUSTRALASIAN BRANCHES.

South Australia.

THE monthly meeting was held at 8 p.m. at the University on September 24th, 1903. The President (Dr. Jay) occupied the chair, and there was an attendance of 35 members, including two visitors.

Dr. H. SIMPSON NEWLAND showed a man, aged 34, upon whom he had performed rhinoplasty. The nose and a portion of the cheek had been removed owing to the parts being involved in an epitheliomatous growth. To repair the deficiency a large flap was turned down from the forehead; the frontal raw surface was then grafted with skin from the inner side of the right arm. In less than three weeks all the wounds had healed with a good result. The epithelioma was shown at the meeting.

Dr. H. SIMPSON NEWLAND also showed skiagraphs of (1) thoracic aneurism, (2) popliteal aneurism, (3) tubercular disease of lung.

Dr. POULTON showed a patient after resection of the elbow-joint.

Dr. J. K. HAMILTON showed:—(1) A family with Aniridia. In the father and two daughters there is complete absence of the iris, and the remaining member of the family, a son, the iris defect is represented by a large coloboma directly inwards in each eye. In all the children there are some opacities of the lens, and in the two girls partial ptosis with nystagmus. The father has a complete cataract on the right side which has undergone spontaneous absorption, and has left him very good vision; the left lens has now become cataractous and is quite blind. A sister of the father has, and one child, now dead, had complete absence of irides. (2) An old man, aged 76, who has had an obstinate and chronic ulceration of the cornea, which resisted all treatment until there was a transplantation of the conjunctiva done by Kuhnt's method. This was done nine months ago, and the eye has been comfortable ever since. (3) Child aged 11 years, from whose larynx a brass letter (part of a V.R. from a soldier's coat) was removed. She swallowed the letter, and eight days afterwards came under observation. The letter was found impacted in the larynx, with the legs uppermost. It lay along the antero-posterior diameter, and almost, but not quite, touching the cords. When seized with the forceps, it was found so firmly impacted that it could not be moved, so a preliminary tracheotomy was done, followed by a thyrotomy, and the letter removed. It was firmly fixed in its position, the offset from the front of the letter being embedded in the posterior wall, hence the difficulty experienced in removing it with forceps. The child's voice is now good, and the appearance of the interior of the larynx normal. (4) An appliance known by the name of "Instra," which is on the principle of a Japanese hot box, and is very useful for applying dry heat to the eye.

Professor WATSON showed:—(1) Stomach of a man who suffered from pyloric cancer. It illustrates the nature of the communication which persists after posterior gastro-enterostomy correctly performed.—*Dr. W. A. Giles.* (2) Stomach of a man affected with sarcoma. The growth had spread by continuity to the liver, but had not interfered with the patency of the

Digitized by Google

pylorus. As patient had never vomited, an incision was made in the hope that the tumour might prove to be an obsolescing hydatid.—*Dr. W. A. Giles.* (3) Stomach of a man from whom a cancerous pylorus had been removed a month before death. A small abscess had formed under the liver and was found to be in connection with the track of a through-and-through silk suture in the anterior line of union.—*Dr. Cudmore.* (4) Stomach of a man who died about a year after establishment of a gastric fistula, according to the method of Franck.—*Dr. Poulton.* (5) Osteo-chondo-fibroma, weighing 14 oz., which was removed from the lower end of the femur of a man, *æt.* 36, who stated that it had been growing for seven years. It resembles in shape a large symmetrical goitre, and overlapped the shaft of the femur just as a goitre does the trachea. Its area of implantation was smoothed down with a chisel, and the fascia lata, which was split in delivering it, was closed with catgut sutures.—*Dr. W. A. Giles.* (6) *a* Left kidney of an old man who died of aortic disease. It resembles the spleen in size and shape and occupied the pelvic cavity; its blood supply came from both the comon iliac arteries, close to the aortic bifurcation. Its ureter is not quite 5 in. in length. The suprarenal capsule occupied its usual position near the diaphragm. *b* Heart of the same individual showing calcified rigid aortic valves and an inordinate pouching of the anterior sinus of Valsalva, which, perhaps, accounts for a sort of musical murmur noticed during life.—*Dr. J. C. Vereo.* (7) Calcified hydrocele, like the eggshell of an ostrich. Its former owner was an old man, who referred its development to a kick from a shipmate during the Crimean war. He was knocked down and his scrotum trodden on by a horse and lacerated a week before its removal, when it was found to be filled with recent blood clot.—*Surgeon-Captain Bickle.* (8) Hæmorrhagic sarcoma of the left testicle, the size of a cocoanut, from a man *æt.* 45, who stated that it had been growing for a year. It recurred within a month in the scar, and now, six weeks after its removal, is rapidly filling the pelvis.—*Surgeon-Captain Bickle.*

Dr. HUMPHREY MARTEN showed a man upon whom he had performed a posterior gastro-enterostomy for chronic gastric ulcer, attended with profuse hæmatemesis. The symptoms quickly disappeared, and the patient gained 17 lb. in weight in five weeks. Dr. MARTEN also re-exhibited a lady upon whom he had performed pylorectomy some months before. She looked extremely well, and was free from all signs of recurrence.

Minutes of previous meeting were read and confirmed.

Dr. R. H. MARTEN then opened a discussion on "Gastric Surgery." (See page 457.) This was followed by a paper by Dr. W. ANSTEY GILES. (See page 460.)

Prof. WATSON, who illustrated some of his remarks by sketches on the blackboard, said that Australian surgeons appeared to be all strenuous advocates of gastro-jejunostomy by the posterior route (v. Hackers). They should not overlook the frequent inaccessibility of the posterior wall of the stomach and its occasional unpromising condition, even when it was accessible. He had seen surgeons abandon the operation when confronted with a board-like omentum or a leather-bottle stomach; he had seen others adopt the anterior route and pull up a long loop of jejunum in front of the colon, and anastomose its bight with the anterior wall of the stomach (Wölfler's). Monprofit and Doyen, etc., held that it was preferable in such desperate cases to cut the loop across and implant the distal (jejunal) end in the stomach, and the proximal (duodenal) end in the jejunum lower down. In Wölfler's operation, the transverse colon and omentum would ride on both limbs of the jejunal loop, and a drag on the sutures connecting it with the stomach. In the other method (antecolic "en Y"), if the jejunal mesentery was adequately divided, the transverse colon would subside into a reposeful position in the jejuno-jejunal fork, and be draped by the attenuated omentum associated with wasting disease. Supposing, however, that the omentum was massive and heavy, or fixed by pelvic adhesions, it could easily be split, as recommended by Roux (from whose retro-colic gastro-jejunostomy "en Y" for routine cases the above-mentioned ante-colic operation "en Y" for exceptional cases had evolved). As regards operations by side-to-side anastomosis, some of the specimens on the table would tend to show that, apart from the question of mere calibre, the architectural lines of the anastomotic opening were at fault, principally on account of faulty correlation of the lumina of the proximal and distal segments of the bowel to each other and to the oval opening in the stomach common to both. Sometimes too much of the lumen of the proximal (duodenal) limb was exposed to the full force of the outpouring contents of the stomach. In the specimen taken from the case just related by Dr. Giles, the operation was followed by great immediate improvement, and it can be seen that the lumen of the proximal segment is protected by the shelf-like edge of the oval opening in the stomach wall. In an extraordinary case published by Mr. Moynihan, where circumstances led him to close the duodenal segment, the whole of the bile and pancreatic juice passed backwards into the stomach for more than a year without much inconvenience to the patient, who eventually died of peritonitis, caused by a Murphy's button having found its way through the pyloric ring into the occluded duodenum. It was apprehension of misdirected stomach contents, rather than of bile regurgitation (Bilroth's vicious circle), which induced Dr. Giles to extend the sero-muscular suture line an inch and a half to the left of the actual opening in the wall of the stomach. In a case of Dr. Hamilton's, operated on four years ago, where a triple line of suture was employed instead of a double layer (which is now found sufficient), the sero-serous line of suture was carried only half an inch beyond the border of the common opening; none the less, the immediate result was all that could be desired. The stomach had evidently not been thoroughly emptied before the operation, and some vegetable fibre, like chewed sugar-cane, got straddled on the spur and caused so much vomiting that the patient burst open his parietal wound and died shortly after it had been re-sutured. The extra precaution of anastomosing the two limbs of the jejunal loop would add to the duration of the operation, and, after all, could not be regarded as complemental to a gastro-enterostomy with side-to-side union carried out on proper lines.

Dr J. A. G. HAMILTON and the PRESIDENT also discussed the papers, and the discussion was then adjourned.

New South Wales.

THE regular monthly meeting of the Branch was held at the Royal Society's Room on Friday, 25th September, 1903; Dr. Brady (president) in the chair. There were 45 members present. Visitor: Dr. Bryant (Melbourne).

The minutes of the previous meeting were read and confirmed.

The PRESIDENT announced the election of the following new members:—Drs. F. B. Williams (Bingara), C. C. Walch (Corowa), Eleanor E. Bourne (Brisbane), C. W. Bruce (Candelo), A. W. Ealer (Stanmore), A. P. Ross (Condobolin), G. Wigan (Armidale), H. L. Shorter (Petersham). Nominated for election:—Dr. Effie Stillwell (Sydney).

Digitized by Google

The PRESIDENT stated that as the only nominations for representatives to the Home Council were Mr. G. E. Twynam and Professor Charles Martin, these gentlemen were therefore elected.

Dr. LITCHFIELD read some notes on a case of widespread Interstitial Myositis of undefined origin in a child. The patient was exhibited.

Dr. KATE HOGG read some notes on a case of Sclerema Neonatorum. The patient was exhibited.

Dr. SAWKINS read some notes on a case of Diffuse Scleroderma. The patient was exhibited.

Dr. LITCHFIELD said he was very much interested in Dr. Hogg's case, as he had a similar case as an outpatient of the hospital. There was a history of syphilis in his case, but it cleared up in about three weeks, and the child became quite well.

Dr. SINCLAIR GILLIES said he remembered two cases similar to Dr. Hogg's. One was brought in in a dying state and had a peculiar waxy appearance after death. In the second case the symptoms came on slowly, and in about five months it cleared up and the child recovered. There was no history of syphilis in this case. It appeared to him that if the disease came on slowly it would clear up and the child would recover, but if the condition came on rapidly, then, as a rule, the case proved fatal.

Dr. LAWES said he remembered a somewhat similar case, but unfortunately he could not follow it up; he had heard the case had proved fatal. He thought that the only cases of this kind which yielded to treatment were those of specific origin. He would like to know if the Thyroid treatment succeeded.

Dr. KATE HOGG replied.

Mr. THRING read a paper on "Certain Pelvic and Abdominal Operations." (See page 455.)

Mr. BARRINGTON entirely agreed with the facts set out in Mr. Thring's excellent paper. Having been consulted from time to time by patients who were advised to have varied operations performed, and in whom there was no tangible pelvic disease, he found by attention to the digestive and emunctory organs, tonic treatment, change of air, and diversion of thought from the pelvis, that their pains often completely disappeared. Pelvic pains without any local lesion were not uncommon in women who were neurotic or run down. In such women, when unmarried, pelvic examination to be justified should be based on the strongest grounds. Speaking in general terms, pelvic examination of single women on inadequate grounds was much to be deprecated, but when indicated was most satisfactorily conducted under an anæsthetic, any minor operation, if necessary, being done at the same time. In regard to Alexander's operation, he preferred to open the canals and transfix the shortened ligaments with obliteration of the canals by buried absorbable sutures. The results in properly selected cases were as good as any suspensory operation, and the course of subsequent pregnancy, in his experience, was never interfered with. In dealing with infected lesions of the uterine appendages he always curetted immediately before opening the abdomen. This preliminary he thought imperative in conservative surgery of these parts, which, as far as possible, was his aim, more particulary in young women.

Dr. WORRALL said the matters which Mr. Thring had brought forward were common and ordinary, but were not the less welcome on that account. In curettage for incomplete abortion it should be remembered that the uterine wall was often softened by septic processes, and that, therefore, in these cases great care should be exercised to avoid perforation; the upstroke of the curette should be very gentle. If perforation did occur its non-recognition was far more dangerous than the actual perforation, for one might pump irritating antiseptics into the peritoneal cavity. In any case he thought it was better to use sterile saline solution for flushing out the uterine cavity in these cases; the uterine ends of the Fallopian tubes were sometimes patulous, and antiseptics might find their way into the tubes and peritoneal cavity. Saline solution under such circumstances could do no harm. He (the speaker) felt as strongly as Mr. Thring regarding some of the practices which he condemned. He referred particularly to curettage in the presence of tubal disease (unless immediately followed by abdominal section), to the treatment of prolapse or procidentia by a perinæorrhaphy only, and to the treatment of *uncomplicated* retro-displacement by abdominal section when Alexander's operation would accomplish all that was necessary. With regard to procidentia, he (Dr. Worrall) had dealt with the subject in his presidential address on gynæcology at the medical congress in Hobart, and had pointed out that as the condition was due not to a single lesion but to a group of lesions, unless all were remedied and at one sitting a satisfactory result could not be expected. With reference to retro-displacement, which of them would choose for his relative or for himself any operation attended with risk when another without risk would achieve the same end? Opening the peritoneal cavity was necessarily associated with a risk which Alexander's operation was devoid of. He thought, therefore, that Mr. Thring's criticism was most timely and valuable.

Dr. MCKAY did not agree with Mr. Thring in the strictures he had passed on the use of the blunt curette. He had used a pair of forceps, and found that instrument answered the purpose as well as any other in cleaning out the uterus. The use of a sharp curette after a case of abortion would be preferable. There could be little doubt that curetting was frequently done when it should not be done. He had known curetting to be done in a case of hæmorrhage, and subsequently it was discovered that the patient had hydatid of the liver, With regard to Alexander's operation, seven or eight years ago he had condemned that operation, but he had since come to regard it as one of the most useful operations in gynæcology. He had practised that operation 150 times, and could speak in high praise of it.

Dr. GEO. ARMSTRONG held that the blunt curette was useful, and might be followed by the sharp. With regard to what Dr. Barrington had said with reference to Alexander's operation, that could only be done when the uterus stands up without any support.

Dr. BARRINGTON explained he had not intended to compare the two operations.

Dr. MILLS agreed with the paper in many particulars relating to operations, though this branch of practice did not come prominently under his ken. Weak anæmic women complaining of indefinite pelvic pains frequently recovered by simple medical treatment; their aches and pains disappeared, and, with the general health improved, they rapidly recovered. He regretted Mr. Thring in his paper had not referred to the abuse of pessaries. Perhaps in replying to the criticism on his paper he would do so. With regard to the practice of examining women, he would suggest that this should be more frequently done per rectum, as by this route the examination was likely to be sufficient.

Dr. WATSON HARVEY thought, as a general practitioner, he ought to thank Mr. Thring for his weighty words in the important subject—over operating in minor gynæcology. He agreed that they were too quick to dilate and curette as a panacea for all menstrual troubles, and forgot the all important general condition and its treatment. He had under his care a multipara with dysmenorrhœa and backache, chronic and intractable. She was dilated twice in

Digitized by Google

Adelaide, once in Melbourne, and nearer home was told that curetting ought to be done. But under general treatment, remembering her constipation, she had got marked relief. There was the other common condition, a multipara, with slightly torn cervix, slightly torn perineum (most multiparæ have), who was led to believe that nothing but a plastic operation would restore her well-being; but under constitutional treatment her neurosis had disappeared. That evening he saw "an Alexander" of two years ago who said that for the first time she was really relieved after four weeks general treatment. Much information had been imparted to them that evening, so much more than if they were told the latest and most difficult abdominal procedure, which they, as general practitioners, might never meet with, nor even be fortunate enough to witness.

Dr. WILLIAM CHISHOLM said that Mr. Thring's paper reminded him of papers published 20 years ago by the late Sir Russell Reynolds and Dr. Clifford Allbutt, in which they referred to the excessive zeal in operating on the part of gynæcologists. They also spoke in the most scathing terms of what went on in the dim irreligious light of certain consulting rooms, and expressed the opinion that too much attention was given to the fact that a woman's uterus, like her nose, might be a little on one side, or, like that organ, might run a little. It would seem, therefore, that in spite of all that had been done by the gynæcologists during the last 20 years, it had not all been solely in the interests of the ladies themselves. Though not himself engaged in that work, no one could be in any kind of practice for long without coming across many women who had been curetted, and, so far as they were concerned, were none the better for it. He could not help feeling that the zeal which had been displayed in connection with the female genito-urinary system was likely to be extended to that of the male, and he feared that the elderly gentlemen of the prostatic age were in for a bad time during the next few years. At any rate, he ventured to hope that some little time would be allowed to elapse before we were comforted with anyone's "first series of 100 cases of prostatectomy."

In reply, Mr. THRING again pointed out that the few remarks he had made were intended more as a suggestion; that it was needful for them, as a body of professional men, to carefully and critically consider their position with regard to operative surgery in its relation to themselves and to the general public. He had no new methods to suggest, no instruction of any kind to offer, no record of a long series of brilliant operative successes, but merely a request to pause and think. The operations especially referred to were simply used to illustrate, and he had at the time no intention of discussing details. Certain points had, however, been raised by some of the speakers, and he would therefore reply to them. Dr. Armstrong had condemned the use of a sharp curette, under the conditions indicated, *i.e.*, in cases of incomplete abortion and septic uterus. Dr. Armstrong preferred a compromise—an instrument neither blunt nor sharp, because of the danger of the latter. His (Mr. Thring's) reply was that he still preferred to use a sharp curette, of suitable size, and that he considered that the danger of imperfect operation was minimised thereby. All surgical instruments were dangerous unless one used them properly. Dr. McKay said that he now approved of the operation of shortening the round ligaments, although previously he had condemned it. He was in the habit of doing three or four a week, and *not* limiting the operation to cases of uterine displacement uncomplicated by pelvic adhesions, but that he dealt with adhesions through the internal abdominal ring. This seemed to the speaker entirely wrong, and he believed that satisfactory results could not possibly be obtained in such a manner. Dr. Mills, he was glad to hear, speaking as a physician, agreed in the main with what had been said. He (the speaker) was entirely at one with him in condemning the frequent and prolonged use of pessaries. He also found that in practice a very thorough examination of the pelvis could be made per rectum in those cases in which it was undesirable to examine per vaginam.

Dr. CLUBBE read a paper on "Intestinal Obstructions due to Extra Peritoneal Inflammations."

Mr. THRING suggested that in one of the cases an intussusception might possibly have been the source of trouble.

Dr. MILLS also discussed the paper.

Council Meeting.

A SPECIAL meeting of the Council was held at the Association Rooms on Friday, 18th September, 1903. Present: Drs. Brady, Rennie, Crago, MacCormick, Hankins, Newmarch, Hinder, Abbott, Pockley, Dick, and Worrall.

The minutes of the previous meeting were read and confirmed.

Letter was read from Mr. Mackenzie, of the Dairymen's Association, calling attention to the application for a common rule with reference to the delivery of milk in the city and suburbs, and asking for the co-operation of the Branch in opposing such application. Resolved—"That the Council of the New South Wales Branch of the British Medical Association enters its strongest protest against any regulation which would interfere with the delivery of fresh milk in the city and suburbs twice daily on each day of the week. Such interference with the milk supply would materially increase the high rate of infantile mortality." Resolved—"That Dr. G. E. Rennie be appointed to represent the Branch at the Arbitration Court." Copies of the resolution to be forwarded to the Medical Adviser, the Crown Solicitor, and Mr. Mackenzie.

Letter from Mr. Guy Elliston, Secretary of the Parent Association, *re* representatives to the Council.

Victorian Branch.—Letter from the Hon. Secretary of the Victorian Branch suggesting periodical meetings of the various Branches throughout the States. Resolved—"That in view of the date of the next Congress having been fixed, the Victorian Branch be informed that the time is considered inopportune for taking any action in the matter."

Letter was read from the Hon. Secretary of the Women's Australian Natives' Association asking that a deputation of the officers of the Women's Australian Natives' Association be received with a view to the discussion of the medical question. Resolved—"That the deputation be received." Resolved—"That Drs. Rennie, Crago, and Hankins be appointed a sub-committee to meet the deputation from the Women's Australian Natives' Association."

Balmain Friendly Societies' Dispensary.—Letter from the Hon. Secretary of this Branch to the medical officers of the Balmain F.S. Dispensary was read. The Hon. Secretary reported that the medical officers had waited upon him and had asked for further time to consider the matter. The Hon. Secretary reported that a deputation from the Balmain Medical Association had waited upon him to discuss the subject. Resolved—"That the matter be postponed until the next meeting of the Council."

Dr. RENNIE brought the question of disposing of some of the books in the library, as the room was altogether

Digitized by Google

too full. Resolved—"That Dr. Knaggs be written to asking what were his wishes with regard to certain books belonging to him left in the library of the Branch, in view of the fact that the library space was becoming very limited."

Permission was given for the publication of particulars of the Branch in the new Medical Directory.

The Council met at the Association Rooms on Friday, 9th October, 1903. Present: Drs. Brady, Rennie, Beeston, Hinder, Pockley, Hankins, Crago, Fiaschi, Worrall, Dick and Abbott.

The minutes of the previous meeting were read and confirmed.

Dr. EFFIE STILWELL was elected a member of the Branch.

Letter was read from the Hon. Secretary Balmain District Medical Association with reference to fees paid by the Balmain F. S. Dispensary. Resolved—"That the letter drafted by the Hon. Secretary be forwarded to the Balmain Friendly Society's Dispensary."

Letter from the Hon. Dr. Mackellar with reference to Midwives Bill was read, and it was decided to obtain copies of the bill introduced by Sir James Graham. Resolved—"That a sub-committee consisting of Drs. Foreman, Worrall, Crago and Dick be appointed to deal with the matter."

The HON. SECRETARY reported that the proposed conference with the Women's A.N. Association did not take place, the deputation declining to confer unless the press were present.

Biographies in the Cyclopædia of New South Wales. Resolved—"That the Council, in accordance with Article of Association No. 37, is of opinion that biographies of medical men should not appear in the Cyclopædia of N.S.W.; that a circular be forwarded to all members on the subject."

The HON. SECRETARY reported that he was in communication with the medical men of Goulburn with reference to the proposed meeting there.

Dr. CRAGO reported that the credit balances were as follows:—General account, £244 5s 11d; GAZETTE account, £114 0s 9d.

Resolved—"That Dr. Crago be re-appointed representative of the Council on the General Committee of the Sydney and Suburban Provident Medical Association."

West Australia.

AN ordinary general meeting was held at the Perth Public Hospital on August 19th. There were present: Drs. Kelsall (president), Thorp, Thompson, Astles, Newton, Blackburne, Trethowan, Laurie, Saw, V. Black, Ramsay, Teschen and Randell.

Dr. TESCHEN made some remarks on a case of Addison's disease, the adrenals of which had been exhibited for him at last meeting.

Dr. NEWTON showed a boy who had had a compound dislocation forward of the lower end of the right humerus; 1½ inches of the lower end of the humerus had protruded; everything in front of the joint except the median nerve was severed, including brachial artery and flexor muscles of forearm. The arm had been restored almost completely to its former usefulness.

Dr. SAW showed a patient with a rodent ulcer of the face, which had destroyed a great deal of the face, nose, upper lip and left cheek; everything recommended had been tried without avail. X-rays had now been used with marvellous result; the parts were healing and skinning over rapidly.

Dr. KELSALL showed an eye case, with double papillitis, which showed great engorgement of the retinal vessels, of the left eye in particular; it was probably due to pressure from a tumour growing from the base of the skull.

Accounts amounting to £24 0s 4d were passed for payment.

A sub-committee appointed to collect data with reference to establishing a sanatorium for consumptives in this State made a progress report. A deputation was appointed to wait upon the Colonial Secretary to place the matter before the Government.

It was resolved to write to the Attorney-General, pointing out that the Branch were desirous of having the law altered so that the form of oath taken by witnesses in law courts may be optional with the person taking the oath.

An ordinary general meeting was held on September 23rd, at the Perth Public Hospital. There were present: Drs. Kelsall (president), Blackburne, Ramsay, Darbyshire, Thompson and Randell.

Dr. DARBYSHIRE showed microscopic urinary crystals from urine of a case of jaundice in a child. There was marked anæmia; spleen enlarged; no rise of temperature; vomits all food; semi-comatose; illness came on suddenly. He had not been able to satisfy himself as to the diagnosis of the case.

Dr. KELSALL showed a man from whose eye he had removed a piece of quartz. It entered the eye just above middle of cornea, and was in the eye two or three weeks; was removed about a month ago. The case was progressing satisfactorily.

It was resolved to hold the annual meeting and dinner on the same evening in November.

Queensland.

A MEETING of the Branch was held on Friday, October 2nd, Dr. W. S. Byrne, vice-president, in the chair, with an attendance of 13 members.

Dr. ROBERTSON exhibited a Maori skull, showing dislocation and ankylosis of the atlas.

Dr. LOCKHART GIBSON exhibited a patient upon whom he had successfully operated for trichiasis by a modification of Snellen's operation, and illustrated the method by diagrams.

Dr. HAWKES read a paper on "Notes on the Surgical Treatment of Trigeminal Neuralgia."

Drs. Byrne, Taylor, Hare and others discussed the subject, and Dr. Hawkes replied.

Nominations for office for 1904 were received.

Ballarat.

THE ordinary meeting of this Branch was held at the Ballarat Hospital at 8.30 p.m. on September 26th, 1903. Present: President (Dr. Usher), Drs. Bennett, Champion, Courtney, Gardiner, Hardy, Lidwill, Martin, Mitchell, Morrison, McGowan, Nisbet, Showman, Steell. Apologies: Drs. Cussen, Pern, Affleck Scott, and Robt. Scott.

Minutes of meeting held on July 30th were confirmed on the motion of Drs. MITCHELL and GARDINER.

Dr. NISBET read his paper on "Some Surgical Experiences during the South African War," and exhibited Mauser and Lee-Metford bullets and a pom-pom shell; radiographs of revolver bullet in thigh, splintered fracture of tibia, badly-united fracture of thigh, foreign bodies in elbow joint, and Mauser bullet in foot; photograph of Hunterian chancre on cheek; also, a patient whose hæmothorax, following on bullet wound of chest, developed into an empyema. Dr. Nisbet was congratulated on his paper and his experiences.

Dr. MITCHELL read his paper on "Some Cases of Hysterectomy."

Digitized by Google

The matter of a lecture by Dr. B. S. Cowen, of Eaglehawk, on "The Prevention of Tuberculosis in Miners," illustrated with lantern slides, was left in the hands of Drs. Morrison, R. Scott, and the secretary.

Drs. MITCHELL and SHOWMAN moved that a letter of condolence be sent to the relatives of the late Dr. W. Chisholm Ross, Dimboola.

Dr. USHER then exhibited some South African curios.

The following specimens were also exhibited:—Dr. LIDWILL: (*a*) Large multilocular ovarian cyst; (*b*) ovarian dermoid cyst; (*c*) heart showing sclerosis of coronary arteries; (*d*) heart showing marked fatty degeneration of muscle and recent pericarditis; (*g*) some specimens from a case of osteomalacia; (*h*) slide of splenic leukæmia.

Dr. MARTIN: (*e*) Extra-uterine fœtation.

Dr. SALMON: (*f*) Ovarian cyst with twisted pedicle.

The meeting then terminated.

REPORTS OF SOCIETIES.

Western Medical Association, N.S.W.

A MEETING was held at the Masonic Hall, Bathurst, on Wednesday, October 7th, 1903, for the purpose of re-forming the Western Medical Association. The meeting was preceded by a dinner at the Royal Hotel, at which the visiting medical men were entertained by those of Bathurst.

Dr. T. A. Machattie, of Bathurst, presided, and there were also present: Drs. Edmunds, Hurst, P. Bassett, Brooke-Moore, A. O. Wilson (Bathurst), Hawthorne (Mudgee), L. J. Fitzpatrick (Orange), Asher (Lithgow), Cobb (Sofala), J. H. Wilson (Millthorpe), and E. H. Burkitt (Dubbo).

Letters of apology for absence and expressive of sympathy with the objects of the meeting were read from Drs. R. T. Michell (Blayney), J. Reiach (Molong), A. Grieves (Burraga), C. Graham (Wellington), W. B. Cargill (Carcoar), E. Linton (Wellington), Rygate (Wellington), Sturges (Wellington), T. D. Bertram (Coonamble), T. Dean Bray (Orange), H. Tressider (Dubbo), C. H. Scott (Bourke), B. A. Leonard (Gilgandra), M. Veech (Molong), Wm. Kelty (Orange), E. A. Woodward (Wyalong), E. G. Griffiths (Blayney), G. Faithful (Bourke), W. C. Robinson (Cobar), A. Ross (Molong), Barton (Dubbo), Forster (Narromine), Roseby (Nyngan).

It was proposed by Dr. Machattie, and seconded by Dr. Hurst, and carried—"That Dr. Burkitt, of Dubbo, act as secretary *pro tem.*"

It was proposed by Dr. Hurst—"That those present, together with those who have written signifying their wish to join, form the Western (Districts?) Medical Association." Seconded by J. H. Wilson, and carried.

The meeting then proceeded to pass rules and by-laws for the conduct of the Association.

Dr. Brooke-Moore proposed—"That the objects of the Association shall be (*a*), (*b*), (*c*), as in the old rules." Seconded by Dr. A. O. Wilson, and carried.

Dr. Hurst proposed—"That the Association consist of duly qualified medical practitioners not excluded by any of the by-laws of the Association." Seconded by Dr. J. H. Wilson, and carried.

Dr. Hawthorne proposed—"That the affairs of the Association shall be managed by a council consisting of a president, a vice-president, a secretary and treasurer, and four councillors; three to form a quorum." Dr. Asher seconded the resolution, which was carried.

Dr. Hurst moved, and Dr. Brooke-Moore seconded—"That semi-annual meetings be held at Bathurst or Orange, in the Spring, and at Dubbo or Wellington, in the Autumn, as the Council may decide." Carried.

Dr. J. H. Wilson moved, and Dr. Brooke-Moore seconded—"That the Council shall have power to elect any duly qualified medical practitioner, resident in the Western District, who shall have been proposed and seconded by members of the Association." Carried.

Dr. Hurst moved, and Dr. Cobb seconded—"That each member shall pay to the treasurer an annual subscription of 10s 6d, etc., etc. (*vide* Rule 12)." Carried.

Dr. Hurst moved, and Dr. J. H. Wilson seconded—"That the Council shall hold as many meetings, etc., etc. (as in Rule 13)."

Dr. P. Bassett moved as an amendment—"That resolution as above, with the exception that the chairman have *only* a casting vote." Dr. Fitzpatrick seconded the amendment. The amendment was carried.

Rules 14, 15, and 16 were adopted.

Rule 17 was adopted, with the alteration—"Nominations shall be made in writing to the secretary 21 days before the annual meeting."

Rule 18 adopted, with the alteration—"Cheques to be signed by secretary and president."

Dr. Hurst moved—"That the Spring meeting be the annual meeting, the exact date to be fixed by the Council. Seconded by Dr. Cobb, and carried.

Rule 20 carried, with the alteration—"*14 days*," instead of "seven."

Rules 21, 22, 23, 24, 25, 27, and 28 carried.

Rule 26 was carried, with the alteration—"*12 members*," instead of "15."

The by-laws were all adopted.

Dr. Hawthorne moved, and Dr. Edmunds seconded—"That the rules and by-laws as passed at the meeting be printed and sent to all members" This was agreed to.

The election of officers then took place.

Dr. Burkitt moved, and Dr. J. H. Wilson seconded, that Dr. T. A. Machattie (Bathurst) be president for the ensuing year. Carried.

Dr. Hurst moved, and Dr. Brooke-Moore seconded, that Dr. E. H. Burkitt (Dubbo) be vice-president. Carried.

Dr. Hawthorne moved, and Dr. J. H. Wilson seconded, that Dr. Brooke-Moore (Bathurst) be secretary and treasurer. Carried.

Dr. J. H. Wilson moved, and Dr. A. O. Wilson seconded, that the councillors be Dr. Hurst (Bathurst), Dr. C. Graham (Wellington), Dr. Fitzpatrick (Orange), and Dr. Hawthorne (Mudgee). Carried.

OBITUARY.

WILLIAM MORRIS, L.F.P.S. (Glasgow), 1854, Sydney.

We regret to record the death of Dr. William Morris, which took place on October 2nd. He was in his 72nd year, and had resided for some time at Strathfield. He spent a considerable time travelling about the world after he had retired from practice, and returned to this State early this year. He leaves a widow. The funeral took place at the Necropolis on October 3rd.

DR. A. C. BRIDGES, M.R.C.S. (Eng.); L.S.A. (Lond.), died at Germanton, N.S.W., after a short illness, on October 2nd.

We much regret to record the death of Dr. W. H. Goode, R.N., of Macquarie-street, Sydney, which took place on October 15th, at the age of 63. We shall publish a fuller notice of his career next month.

Digitized by Google

REVIEW OF CURRENT MEDICAL LITERATURE.

OBSTETRICS AND GYNÆCOLOGY.

On the Importance of Rigors in the Puerperium, with special regard to Pyæmia.

Buerna (*Monats. für Geburts und Gyn.*, October, 1902). The author investigated 2541 cases out of 28,758 births, which had rises of temperature from 100·4 F. and upwards, and found 78 in which severe rigors occurred during the puerperium. Cases with slight rigors, associated with abortion operations, lung and pharynx diseases, influenza, infections of serum and medicines, and intra-uterine douches were excluded. As regards the number of rigors occurring in these cases he found the following: Thirty-six cases had *one* rigor, parametritis six, endometritis 13, placental remnants three, ulcers (puerperal), four, paravaginitis one, septicæmia one, pyæmia six, doubtful two; 19 cases had *two* rigors, endometritis eight, parametritis two, septicæmia five, pyæmia three, ulcers (puerperal) one. Five cases had *three* rigors, pyæmia two, endometritis one, parametritis one, placenta remnants one; six cases had *four* rigors, pyæmia two, septicæmia one, parametritis one, endometritis two; one case had *five* rigors, doubtful whether a case of pyæmia or septicæmia. From these cases it appears that more than two rigors may occur in cases of puerperal infection other than pyæmia. The time of onset of these rigors was variable, and the disease did not always begin with rigor, even in the cases described which had only one. Of the 24 cases with pyæmia, all died but five. In opposition to these pyæmic cases with rigors there were ten out of the 2541 febrile cases in which pyæmia was diagnosed, although there were no rigors, and of these four recovered. The author comes to the following conclusions: 1. From one to five rigors may occur in other puerperal septic cases than pyæmia, but more than five occurred only in pyæmia. 2. Septicæmia may have rigors, but it occurs more often without. 3. Pyæmia may occur without rigors, but it is much more likely that they will be present. 4. Certain cases of puerperal pyæmia occur with lymphatic thrombosis, but no thrombophlebitis. 5. On the other hand, lymphangitis is not absolutely characteristic of septicæmia, for cases may occur in which there is thrombophlebitis without lymphatic thrombosis.

A Fibroid of the Uterus in a Girl of 13.

Cavaillon (M. P. de), *Jour. de Med. de Paris*, August 24, 1902. As this case is a remarkable one, a short note may be of interest. The first menstrual discharge, which was very profuse, occurred when the patient was 12 years of age. Severe menorrhagia continued for the next eight months, causing extreme anæmia with digestive disturbances, palpitation, œdema of ankles, etc. Examination 11 months after first menstruation revealed a mass as large as two fists, movable with the uterus, and filling up the pelvis. There was no trouble with the bladder or rectum; there was some pain in the perineal region, especially at the menstrual periods. For the three following months the menorrhagia ceased, but examination showed a marked increase in the size of the tumour, which still appeared perfectly continuous with the uterus. The diagnosis was not easy; menstrual retention was excluded by the passage of the sound, and the history was against pregnancy. The diagnosis of uterine tumour was made with some reservation in view of the patient's age. Hysterectomy by Doyen's method was performed and the patient made a good recovery. The tumour after removal weighed three kilogrammes; it had developed in the posterior wall of the uterus, which was everywhere greatly hypertrophied. The cervix was not involved, and there was no ulceration of the mucosa. In the *Lyon Medical*, June 15th, 1902, the histological examination is given. It was made by M. Bernard de Teyssier, who reported the tumour as being a fibro-myoma. Judging by the first appearance of the symptoms the tumour was present when the patient was only 12 years of age.

Some Observations on Retro-deviation of the Pregnant Uterus.

Poney (H), *La Gynécologie*, April, 1903. The author's experience is that surgical treatment is not indicated even when on the first examination the uterus appears to be absolutely irreducible. Up to the present he has always been able to avoid operative treatment. If firm adhesion exist there is usually sterility, owing to disease of the appendage. Rest in bed, with attention to micturition and defæcation, is usually sufficient. In every case attempts at reduction should be made every other day, or at longer intervals if the lower abdomen is tender after manipulation. The first attempt is seldom successful. The best position is the genu-pectoral, followed by Trendelenburg's position. In many cases women with pre-existing retroversion go through pregnancy without bad symptoms. He draws the following conclusions:—1. Simple retroversion of the uterus, if the cervix and appendages be healthy, offers only a slight hindrance to conception. 2. After delivery retroversion frequently recurs. 3. Pregnancy in a retro-deviated uterus frequently progresses normally without any need for interference. 4. In a small proportion of cases of pregnancy, with retro-deviation of the uterus, incarceration occurs. In these cases, however, reduction by the aid of properly applied manipulations is usually, if not always, possible. 5. To be successful it is essential to reduce the retro-deviated uterus patiently by successive manipulations. Trendelenburg's position appears to be the best, but in some cases the genu-pectoral or dorso-lumbar positions are successful. 6. These manipulations are very well tolerated.

Retroflexion Operation.

Alexandroff (S. A.), *Centralblatt für Gynäk.*, 1903, No. 25. The writer has introduced a new operation, which is based on the consideration of the principal factor concerned in that displacement, viz., the accompanying descent of the uterus. This is due to relaxation of the ligamentous supports, especially the bases of the broad ligaments, in which are situated the ligamenta cardinalia and the ligamenta transversalis coli of Mackenrodt. Further, all movements of the uterus are regarded from the standpoint of a lever whose long arm is the corpus, and whose short arm is the collum uteri. The fulcrum of this lever is situated in the upper part of the posterior surface of the collum. Not only the normal but the pathological movements of the uterus take place about the above fulcrum, and the object of the writer's operation is to restore the displaced womb into its physiological position in the pelvis, to correct descent, or, in other words, to raise and fix the fulcrum to the proper height. Since relaxation of the bases of the broad ligaments account for the descent of the uterus, shortening these supports is the last operative procedure for retroflexion with descent. The operation is easy, and is extra-peritoneal. The uterus is drawn down. A convex flap from the anterior vaginal wall, together with the bladder, is raised *well* up, and the broad ligaments exposed on either side. A provisional ligature is passed through them at their bases, 3½ cm. from the cervix. A strong round

Digitized by Google

bundle of the connective tissue, about 1 cm. thick, is tied on either side by these temporary sutures. The uterus is now brought into anti-version, whilst the assistant crosses the two temporary ligatures and brings the bases of the broad ligaments together in front of the cervix uteri, where they are united by two or three buried sutures, the latter including also some of the cervical tissue. The temporary ligatures are then removed. The buried sutures must not extend above the level of the internal os. The flap in the vaginal vault is then closed, or, if necessary, the prevesical space is drained. In all cases so treated the uterus has retained its proper position and normal mobility. No urinary complications have resulted. Menstruation has not been impaired. Complete after-histories are, however, not yet obtainable.

A Contribution to the Study of Combined Intra- and Extra-Uterine Pregnancy.

Bichat (*Rev. de Gynécol. et de Chir., Abd.*, May-June, 1903, No. 3.) The writer records a case that came under his observation, and gives short notes of 48 other cases reported by others. In 15 of the 49 cases (*i.e.*, about one-third of the total) a tumour other than the gravid uterus was recognised, and very occasionally fœtal parts and a fœtal heart were detected in this tumour. Rupture of the extra-uterine sac occurred 13 times, once at the second month, eight times during the third month, twice in the fourth month, once at the seventh month, and once five days after the birth of the intra-uterine fœtus at term. In 15 cases the intra-uterine ovum was expelled prematurely, seven miscarriages, and eight premature confinements. In 12 cases (*i.e.*, 24·5 per cent.) both pregnancies continued uninterrupted to term. As regards the intra-uterine fœtuses, 17 were born alive and 32 perished, giving a mortality of 65·3 per cent. The deaths were as follows: Fifteen cases of spontaneous miscarriage; five of abortion following intervention called for by the extra-uterine pregnancy; six cases of stillbirth at term; six cases due to death of the mother. In three out of 23 cases which went to term artificial delivery of the fœtus was necessary—forceps twice, version once. No infant born prematurely survived. As regards the extra-uterine pregnancy, in three cases the fœtus was extracted alive, a mortality of 96 per cent. The results in the other cases were as follows: Rupture of tube or fœtal sac, 19 times; fœtus extracted by abdominal section in a state of maceration, eight times; ovum discharged by rectum, four times; ovum discharged by vagina, three times; ovum discharged by uterus, once; ovum absorbed spontaneously, four times; fœtus alive until term, but extracted dead, seven times. For the mother the prognosis is grave, for in 49 cases there were 22 maternal deaths as against 27 cures, a mortality of 44·9 per cent. Death occurred 12 times from intra-abdominal hæmorrhage so rapid that operation was not possible. Seven times death followed operation; three times death resulted from sepsis after expulsion of the intra-uterine ovum. Of 23 cases operated on there were 18 cures and seven deaths, a mortality of 30·44 per cent. Of 24 cases in which no operation was attempted, the mother died 15 times, a mortality of 62·5 per cent.

Bilateral Extra-uterine Pregnancy.

Psaltoff (*Annales de Gynéc. et d'Obstet.*, May, 1903).—The following case is of interest, as the pregnancy was bilateral:—The patient, aged 35, married 17 years, had borne seven children at term. Her last confinement was seven years ago. She was admitted to hospital September 19th, 1902. In June, 1899, she had an attack of abdominal pain, accompanied with vomiting. The periods were a few days late. The pain lasted 24 hours, and then lessened. Another, but less severe, attack occurred 15 days after this, accompanied for about five months, during which time the periods returned, and she was able to follow her ordinary occupation. Four months before admission she was again attacked with abdominal pain and vomiting, and these symptoms continued up to the date of her operation. During this time the periods were absent. She was very ill, and morphine was necessary to relieve the pain. The abdomen was distended and tender, and a fixed tumour the size of an adult's head reached nearly to the navel. The swelling filled Douglas' pouch. The cervix was soft, and the enlarged uterus was fixed behind the symphysis pubis. Extra-uterine pregnancy was diagnosed, and operation decided upon. The abdomen was opened, and a fluctuating tumour exposed. Its surface was smooth and very vascular. It filled the pelvic cavity. It was incised, and a considerable amount of fluid mixed with blood escaped. Bleeding was free, and on introducing the hand into the sac a five months' fœtus was discovered. This was removed, together with its placenta and membranes. The tubal sac was removed, and some vessel in the right broad ligament ligatured. On examining the left side of the pelvis another tumour the size of a fist was discovered. It was very adherent, but soft. It was punctured, but only a little fluid escaped. On cutting into this swelling a mummified fœtus of the age of five months was found. The sac was freed and removed entire. It appeared to be an ovarian pregnancy. The abdomen was then closed, but drained for eight days after the method of Mikulicz. The patient did very well, and left the hospital 40 days later. The author remarks on the interest of this case in that two extra-uterine sacs occurred, and were removed at the same time, one sac containing a fœtus which had been retained several years in the abdomen without causing any inconvenience. The case also shows that a woman who has had one ectopic fœtation may also have another, and therefore in operating on extra-uterine cases both appendages should be carefully examined. The question is also raised whether, in order to prevent the occurrence of a second pregnancy, it is not justifiable to remove the appendages and the uterus at the time of operation.

OPHTHALMOLOGY.

Mental Derangement in Patients in Eye Hospitals.

V. J. Kipp, in Knapp's Archives for July, records a series of 12 cases that had been under his personal observation. The derangement in most took the form of an acute maniacal delirium. The patients were violent, shouting, raving, and rushing from the hospital, in some cases jumping out of the windows of the ward, in others climbing fences, and running across country in the snow with only night clothes on, etc. Kipp summarises as follows:—All the cases reported occurred in the wards of eye hospitals. Some occupied darkened rooms, but the great majority were treated in well-lighted cheerful rooms. Some were in a room by themselves, but the majority had been in rooms with three or four others. Some were confined to bed, others were dressed, and were sitting up or walking about the wards. Only one had both eyes bandaged at the time the mental trouble developed. All the others had either only one eye covered by a shield or had both eyes open when the first symptoms of mental trouble showed themselves. Some had good sight in the uncovered eye; the others had more or less impaired vision in it. Some came from the city, but most of them from some

Digitized by Google

distance. Both sexes were represented, but males predominated. The youngest patient was about 30 years of age; the majority were over 50. All were in good general health, and were not suffering pain in their eyes when the outbreak occurred. All were mentally sound when admitted, and also of average intelligence. All were poor, some of them paupers. Most of them could talk English, but some of them could not speak any language with which the nurses were familiar. Most of the cases had been in the hospital more than a week, and some only a few days when the mental trouble began. In most of the cases the delirium developed after operation on the eye, but on two no operation had been done, and had not even been proposed to the patients. In the great majority of cases a solution of atropine had been instilled several times daily, but in a few no mydriatic of any kind had been used before the outbreak. *Recovery from the mental trouble resulted very speedily in all cases in which the patients could be removed to their former homes immediately after the outbreak.* A considerable improvement was secured by having the members of the household stay with them, and by transferring them to other quarters. In the cases in which the patients' injuries resulting from their attempts to escape were so grave as to require their transfer to a general hospital, the shock, or perhaps the change of environment, produced a cure of the mental disease. With regard to the previous habits of the patients there was no reliable information. Some of them were undoubtedly what is called moderate drinkers. None were drunkards, however, and a number of them were total abstainers from alcoholic drinks. Of this there was positive knowledge. In every case in which it was ascertained that the patient was accustomed to alcoholic beverages small doses of alcohol were given several times daily during their stay in the hospital. The explanation usually accepted of these psychoses is that they are due to the patients being kept in the dark or having their eyes bandaged. According to Kipp this will not hold good. Neither can he accept the suggestion that it is due to atropine poisoning. His explanation is italicised above.

Operative Treatment of Posterior Synechiæ.

J. F. Fulton (*Ophthalmic Record*, July, 1903), after referring to the injurious results of the dragging in the iris caused by these synechiæ, and remarking that the operation is one of the most delicate the ophthalmic surgeon is called upon to perform, describes his method and instrument. The latter is a blunt-pointed crook, which (after the cornea is incised with a spade knife) is hooked under synechia and carefully worked about until it is detached. In the majority of cases he says this can be done without injuring the capsule of the lens. The writer does not appear to be acquainted with Lang's method, which appears to be preferable, as by this the detachment is effected by means of a sharp knife, which, in competent hands, is likely to cause less damage than the dragging of a blunt hook—a method, by the way, originally suggested by Streatfield.

Adrenalin as a Cause of Increased Tension.

Since adrenalin has come into general use in ocular surgery, several cases have been reported in which glaucomatous symptoms have followed its use. The latest contribution to the subject is a paper read by A. F. MacCallum before the Ophthalmological Society of the United Kingdom, in May last, in which he reported five cases of glaucoma in which adrenalin caused an increase of tension. All the cases had glaucoma before the drug was used, but in a few minutes after the instillation of adrenalin, the tension became considerably higher. He referred to the fact that Darier has highly recommended this drug as a therapeutic agent of considerable power in the treatment of glaucoma. In the ensuing discussion, Mr. Parsons said that, experimentally, there was no question that the local effect of the drug was diminution of the intra-ocular tension; also, that the second and general effect was an increase in the tension, but he did not think there was any possibility of a glaucomatous condition arising, unless there happened to be a predisposition to glaucoma. He stated that under the drug the sphincter of the iris would be acting against the blood-vessels, and it was difficult to foretell which would happen. Experimentally, in normal eyes, and particularly in animals, the local effect was diminution of tension, due to arterial constriction, and, in consequence, diminuted secretion, and the general effect was increase of tension, due to the effect on the general blood-vessels of the whole body, the splanchnic area being most effected, and other less important areas, the globe included, were areas of increased blood pressure. Mr. Holmes Spicer suggested, with reference to the greater effect of adrenalin on the arteries than on the veins in normal healthy vessels, that in old persons, whose arteries were notoriously rigid, the drug would be more likely to act upon the veins than the arteries.

Recent Increase of Trachoma in America.

(*New York Medical Record.*) At the New York Eye and Ear Infirmary, 1241 cases of trachoma were treated in 1901, but no fewer than 2323 during the *last three months* of 1902. Inspectors who visited 36 schools found that out of 87,450 children, more than 13 per cent. had contagious inflammation of the eyes, and five-sixths of this was trachoma, either acute or chronic. A careful inspection of all the children was ordered by the Board of Health, with the result that more than 20,000 children were excluded from school on account of contagious inflammation of the eyes, the great majority of them having trachoma.

NEUROLOGY AND PSYCHIATRY.

Psychomotor Hallucination and Double Personality in a Paranoic.

Pickett (*Journal of Nervous and Mental Disease*, May, 1903) records the case of a man aged 35 years, a boilermaker, who was admitted to the Philadelphia Hospital in 1896. His family history was unknown. His wife stated that he had received a severe blow on the head from a falling log in 1893. Early in 1895 he began to complain of pain in the head, heard vague sounds continually, was sleepless, restless, and had fears of harm and misfortune. He had a number of outbreaks of excitement in which he destroyed furniture at home. He would explain to his wife that these outbreaks were due to nervousness. After a time he developed a fixed delusion that certain workmen at the shipyard at which he worked were robbing him of a patent on a ship which he had devised, but which he was too poor to put through. In August, 1898, it was first observed that the patient was continually uttering in a mechanical way certain strange expressions, which appeared to have no meaning. Urged to explain these expressions, he said, "I do not say these words, but the man on my back says them." He added that this man on his back did various things with his (the patient's) body, moving his arms as well as his lips and other organs of speech. Recently he had gone so far as to set aside some portion of his meals for the imaginary host on his back. On reviewing the literature of the subject the author came to the conclusion that the involuntary or "forced" movements of arms or lips in this case are instances of what certain French writers have called psychomotor hallucination—the utterance of words being verbal

Digitized by Google

psychomotor hallucination, while the delusion that these weird influences causing him to speak, etc., were due to a man on his back was what these French writers called "doubling of the personality." The explanation given by Seglas and Ballet is that, as ordinary hallucinations are ascribed to excitation of cortical sensory centres, and are called psychosensory hallucinations, so these strange motor phenomena, as in the present case, arise from excitation of cortical motor centres, wherefore they may be called psychomotor hallucinations. The angular gyrus being irritated, the patient sees visions; the hinder part of the first temporal convolution, he hears voices; the foot of the third frontal convolution, he feels words spoken silently in his head, or he may even feel his organs of speech moved and hear words uttered by his own lips, to the patient's surprise, since he has not consciously conceived or willed these utterances. The silent "interior spoken word" and the unconsciously uttered word arise by the same mechanism; both are psychomotor hallucinations. Ordinary (sensory) hallucinations are promptly "exteriorised"; the voices heard are ascribed to outside agencies, etc., but the psychomotor hallucination impresses the patient as being due to a mysterious agency within himself; and so in time he forms the conception of a new, strange being inhabiting his body or in intimate association with his body. This is the "double personality" of the French, and is exemplified in this patient with "the man on his back."

A Problem in Medico-Legal Psychology.

Under this title, Mackintosh (*Lancet*, August 15th, 1903) reports the case of a clergyman, aged 34 years, who committed suicide, without any apparent cause, probably as a result of some cerebral concussion. The deceased was engaged one morning in making arrangements for a "treat," and had occasion to make several short journeys on his bicycle. After the last of these rides he went to his bedroom, and was found dead on the floor, with a revolver wound in the head, and a revolver on the floor beside him. The wound was clearly self inflicted. On further examination of the body, a large piece of skin was found torn from the hypothenar eminence of the right hand, as if by a fall. There was also a bruise over the patella and a slight bruise on the right frontal region. It was subsequently ascertained that the deceased had been seen to fall from his bicycle and fall heavily on the right side, striking his head. He tried to remount, but failed, and was seen pushing his bicycle homewards. His body was fully clothed, with the exception of his collar and cuffs, which were kept in the same drawer as the revolver. It was, therefore, a legitimate conclusion that he had gone to the drawer not for the revolver but for his linen, and that had the weapon been kept elsewhere the tragedy would never have happened. No reason was discovered that could have prompted him to contemplate self destruction. The writer concludes that the effect of the fall was to induce that form of cerebral concussion which permits the sufferer to perform various complex and apparently reasoned acts, of which he will retain no recollection when he has recovered from the effects of his concussion, and which may be quite at variance with his usual behaviour, the mental condition being identical with that of a somnambulist, of the epileptic shortly after a fit, and of a certain phase of the hypnotic state. It appears that earlier in the week a report appeared in the papers of a clergyman shooting himself through the head in a similar manner. Though the deceased had made no comment on this case to anyone, it is certain it must have come under his notice, and, being a clergyman himself, the fact probably impressed him all the more.

The Babinski Reflex.

In the *Archives de Neurologie* for June, Dr. Marinesco publishes a full summary of observations carefully and repeatedly made on 191 persons, viz., 130 cases of organic nervous disease, 45 normal adults and 16 infants, with a view to testing the frequency of occurrence and the diagnostic value of the important sign known as Babinski's great-toe reflex. Out of 100 cases of cerebral hemiplegia, the reflex was present in 86; out of 31 cases of paraplegia, originating from various causes, it was present in 28; in 45 normal individuals it was altogether absent; and in 16 newly-born children it was observed only in one instance. In the case of infants, however, it was found that when they were asleep, plantar excitation elicited extension of the toes, so that in them the diagnostic value of the reflex is only dependable when they are awake. Marinesco also made the interesting discovery that in recent hemiplegia the sign declares itself very shortly after the occurrence of the apoplexy, whereas the exaggeration of the knee-jerk, which is due to descending degeneration of the lateral columns, does not appear till considerably later. Under chloroform, the reflex disappeared, whereas an increased knee-jerk or ankle-clonus co-existent with it before anæsthesia still persisted when the unconsciousness was complete. These facts have led Marinesco to the conclusion that the Babinski reflex is dependent upon a disturbance of function of the pyramidal tracts short of, and not necessarily equivalent to, actual descending degeneration of their fibres.

Congenital Multiple Sclerosis.

At the meeting of the New York Neurological Society in December, 1902, Dr. Fraenkel presented the case of a girl, seven years of age, whom he considered to be suffering from this disease. The parents were cousins. Five other children in the family are living and well. One child died in infancy, having apparently suffered from the same disease as this patient. The patient was born after an easy and natural labour, but did not talk or walk. Vision and hearing apparently normal, and the child was docile. The head was small, and the eyes had a Mongolian set. Nystagmus was observed when the child looked upwards. She was unable to stand or sit up without assistance, and the gait was typically ataxic. The speech was defective and somewhat syllabic. There was no actual paralysis, but marked incoördination of the muscles of the upper extremities of the intentional type, more marked on the right side. The reflexes were normal. Both feet were very red in consequence of vaso-motor disturbance. The only diagnosis that Fraenkel could arrive at was Congenital Multiple Sclerosis.

The N.S.W. Lodge Practitioners' Compensation Fund.

THERE is every indication that in the immediate future it will be necessary to draw upon this fund, and members who originally signified their intention of subscribing, but who up to the present have neglected so to do, are urgently requested to send in their contributions to the hon. treasurer, Dr. Crago, College-street, Sydney. Members generally are again asked to take into consideration the desirability of augmenting this fund and thereby strengthening the hands of the Branch in dealing efficiently with the question of contract practice.

A WARNING.—Any medical man contemplating a lodge appointment at Maclean, Clarence River, N.S.W., should interview the Editor of the *Australasian Medical Gazette*.

Digitized by Google

CORRESPONDENCE.

London.

(FROM OUR OWN CORRESPONDENT.)

The London Epileptic Colony—The Birthday Honours—The Journal of the Royal Army Medical Corps—Primitive Surgery—Tropical Diseases—Presentation Day at London University—Ankylostomiasis—Army Recruits.

On July 1st the Duke of Fife, Lord Lieutenant of the County of London, accompanied by H.R.H. Princess Louise, the Duchess of Fife, opened the new Epileptic Home which has been established by the London County Council on the Horton Estate at Epsom, and is the first rate-supported epileptic colony in this country. The buildings have been designed by Mr. W. C. C. Smith, and will cost close upon £100,000. They comprise an administrative block and eight separate houses, affording accommodation for 266 male and 60 female patients. Each villa will be under the charge of a resident married couple, and is arranged to accommodate 38 patients. Telephones connect all the buildings, and an electrical fire alarm places them in communication with the central block. The object of the colony is to separate epileptics who are only intermittently insane from the inmates of ordinary lunatic asylums, and is a new departure from which much good is to be expected. Dr. Charles Herbert Bond has been appointed medical superintendent.

On the occasion of the King's birthday the honour of knighthood was conferred upon the following members of the profession: Mr. Alfred Downing Fripp, C.B., Dr. Stephen Mackenzie, Dr. Edwin Cooper Perry, and Dr. Patrick Heron Watson. In addition to these, Dr. Patrick Manson was promoted to be a Knight Commander of the Order of St. Michael and St. George, Surgeons-General Colvin Smith and John Cole Reade were made Knight Commanders of the Bath, and Surgeons-General George J. H. Evat and Adam Scott Reid were made Companions of the Bath. The honours are all well bestowed, but it will be generally admitted that the titular distinction which has been bestowed upon Sir Patrick Manson for services in connection with tropical diseases is a specially gratifying recognition of great work rendered not only to the advancement of his profession but to the progress of civilisation.

In July the first issue appeared of a monthly journal intended for the use of medical officers of the army and for the advancement of military medicine and surgery. It appears under the editorship of Major R. H. Firth, and the introductory article is from the pen of the Director-General, Sir William Taylor. In the course of this article a brief history is given of the reasons which seem to justify the appearance of the journal, of the objects sought to be attained by it, and of the means by which, through its agency, questions of professional and scientific interest may be investigated and developed. Several papers of interest, together with a synopsis of current literature, make up a promising first number, the excellence of which augurs well for the future of the new journal.

Dr. Manuel Antonio Muniz, who was for some time Surgeon-General of the army of Peru, has recently presented to the Bureau of American Ethnology, for preservation in the National Museum, the largest and most valuable collection of trephined crania in the world. The collection, which has already been visited by large numbers of scientific men, comprises over 1000 specimens, among which are many remarkable and interesting evidences of primitive surgery. In the course of a lecture recently given on the subject of ancient trephining, Professor McGee, of the Bureau of Ethnology, gave the following curious and instructive archæological information. He said:—"The study of prehistoric trephining is one of very deep interest, and the more it is studied the more convinced will one become that it is certain that the aborigines possessed advanced medical knowledge. In the ancient villages of both the old world and of this, and in even some of the settlements of the present savages, trephining has been known and practised not only for religious purposes but for surgical purposes. Trephining is a fairly common operation in modern surgery, and essentially it consists in the removal of a small section from one of the bones of the skull, usually in the form of a circular button or rondelle. By most practitioners trephining is regarded as a serious, or even desperate, operation, and is resorted to only in the most dangerous cases. Trephining is occasionally employed in the treatment of disorders among domestic animals, though not so much by trained veterinarians as by rude herdsmen possessing little knowledge of anatomy and less of etiology, and imbued with fantastic notions concerning the effects of the operation. It is performed on sheep and swine with the notion of rupturing a supposed bubble beneath the skull or extracting a grub or worm from the brain of the animal, and thus relieving a mysterious disorder. In such cases the operation is commonly performed in rude fashion, perhaps with carpenter's tools, a chisel and mallet and even an auger sometimes being employed. Not infrequently the animal survives. Among certain primitive people trephining is practised sometimes with astonishing frequency. The Kabyle, a nomadic tribe of Algeria, resort to trephining not only in traumatic lesions of the head but for neuralgia, vertigo, and various other disorders. The operation is performed rudely, either with such tools or implements as may be conveniently at hand or with crude metallic saws, perforators, and elevators designed for the purpose. Ordinarily the aperture, which is frequently large and usually irregular, is closed by a plate, though it is often left open and only covered by the scalp. The frequency of the operation indicates that the mortality cannot be very high; and one observer saw men who had survived five or six operations at different times and for different injuries. The operator is an hereditary shaman, or priest, and the methods are clumsy, painful, and tedious, yet the victim glories in the undemonstrative endurance of the ordeal. Trephining is well known among certain savages. The South Sea Islanders were, when first seen by the white men, acquainted with the operation, which was performed by scraping with a flint instrument, a shark's tooth, or, after contact with the whites, a piece of broken glass. The aperture was commonly covered with a piece of cocoanut shell. The mortality has been estimated at 50 per cent., yet the treatment is said to have been so common in early days that most of the male adults had undergone one or more operations. Even in prehistoric times trephining was not uncommon in various parts of the world, as has been shown by investigators in this and other countries."

A White Paper has been recently issued containing documents relating to the investigation of malaria and other tropical diseases, and the establishment of schools of tropical medicine. It contains a long circular, dated May 28th, 1903, from Mr. Chamberlain to the Governors of our colonies, recounting the work of the Malaria Commission and describing the present schools of tropical medicine in London and Liverpool. The circular concludes as follows:—"In any case, the colonies are likely to be vitally concerned for many years to come with the following objects: Research into malaria and other tropical diseases, in which I am assured that the Royal Society—to whom my warm acknowledgments are due—will continue to co-operate; the schools of tropical

Digitized by Google

medicine, pre-eminently those of London and Liverpool; and the supply of trained nurses. One or other of these objects may more specially commend itself to this or that colony; but I am inclined to think that, as a fund was successfully formed for the double object of the London Tropical School and the Malarial Commission, so colonial contributions, if and when made, might with advantage continue to be paid into a common fund, out of which the objects which have formed the subject of this despatch might he subsidised. Should I find that this opinion is shared, and that there is a general desire on the part of the Crown colonies and protectorates to give moderate donations or subscriptions in aid of medical and sanitary training and research, I should propose to appoint a board to advise the Secretary of State as to how the moneys received can at any given time be best allocated, such a board to consist of the medical adviser of the Colonial Office, a representative of the Royal Society, some leading London physician, one or more representatives of the Crown colonies, and one or more members of the Colonial Office." It is very gratifying to find the Colonial Secretary, in the midst of endless pre-occupations, has found time to give a careful and intelligent study of a subject which can never fail to possess the greatest interest for all whose fate it is to spend part of their lives in the tropics. The suggestions which Mr. Chamberlain makes to the colonies and dependencies of the Empire may, if carried out, have far-reaching results, especially in the establishment of carefully planned and organised preventive measures for the diminution or eradication of the more prevalent tropical diseases. He has clearly shown that the Imperial Government are ready to do their part, and it is sincerely to be hoped that the Crown colonies will second these efforts by providing the necessary contributions and giving acquiescence to the creation of an advisory board such as Mr. Chamberlain suggests.

On the 24th June the Albert Hall was filled to its utmost capacity by a brilliant assemblage in celebration of Presentation Day of the London University. The occasion was remarkable as being the first on which the Senate has ever conferred honorary degrees, the recipients of which were the Prince and Princess of Wales, Lord Lister, and Lord Kelvin. The graduates entered the hall in procession and took their places on seats provided for them below the organ. The Chancellor's procession followed and moved to seats provided for its members on the platform. It was composed of the Registrars, members of Senate, the Principal, the Member of Parliament for the University, the Chairman of Convocation, Lord Lister, Lord Kelvin, the Vice-Chancellor, the Prince and Princess of Wales, and the Earl of Rosebery, who is Chancellor of the University. The vast audience remained standing whilse the Royal Choral Society, numbering 500 voices, sang "God bless the Prince of Wales." The Prince wore the red robe with blue-lined hood of a Doctor of Laws, whilst the Princess was adorned in the scarlet robe with cream-lined hood of a Doctor of Music. The report of the University for 1902-3 was read by Sir A. Rucker, the Principal, from which it appeared that the entry for the matriculation examination had increased by 700 candidates, and that 209 graduates of other universities had been registered as entering upon courses of study. Several munificent gifts were announced, but the Principal stated that large sums of money were still required "to make good the apathy of the past, and to secure the promise of the future." Dr. Pye-Smith, the Vice-Chancellor, presented the Prince and Princess of Wales for their degrees; whilst Lord Lister and Lord Kelvin, who each received the honorary degree of Doctor of Science, were presented respectively by Mr. Butlin, the Dean of the Faculty of Medicine, and Professor Tilden. After the conferment of these and a large number of ordinary degrees, the Chancellor gave a short address in conclusion of the proceedings, and his procession finally left the hall in the reverse order of entry, whilst the choir sang "Hail! bright abode," from Tannhauser.

At the recent meeting of the International Congress of Miners held in Brussels, an interesting discussion took place on the prevalence of ankylostomiasis among coalminers. It was pointed out that for long the true nature of the disorder was not recognised, the anæmia and other evidences of constitutional impairment which result from it being ascribed to sanitary defects in the mines. Some years ago the German Government was induced to institute an official inquiry into the causation of this prevalent miners' sickness, and it was then discovered to be due to the ankylostoma duodenale. This disease has been gaining ground in Germany, and the delegates from that country to the Congress stated that, according to the official figures, the average vitality of the workers in coal mines which were infected had been very materially reduced. The Belgian delegates confirmed the experience of their German confrères; but those from Great Britain were not able to throw light on the subject, the parasite apparently being much less common among English than among foreign miners. It was generally admitted that the worm had been introduced into various coal mines by Italian labourers who had been engaged on the St. Gothard tunnel works, where the disease was very prevalent. In the matter of prevention it was agreed that the first and most essential precaution was the introduction into all mines of portable sanitary pails, and the adoption of stringent rules to insure their constant use. If the mine was already infected, the workmen must be warned not to drink any running water, but only such as was brought from the surface, and known to be clean They should further be instructed to wash their hands before eating, and to avoid putting their fingers into their mouths whilst at work. To prevent the disease being carried by the miners to their families or villages, it would be well to have baths provided at the pit-brow of all infected mines so that the workmen could wash and change their clothes before going to their homes. It would, doubtless, be a matter of difficulty to persuade miners to take such precautions as those indicated, but the delegates were unanimously of opinion that hitherto the authorities had been to blame for slackness in dealing with what really is a very serious evil, and one which can only be properly grappled with by the institution of compulsory measures for the prevention of its spread.

An important memorandum has recently been issued by the Director-General of the Army Medical Service on the physical unfitness of men offering themselves for enlistment. The proper material from which to recruit the army ranks is not forthcoming in sufficient abundance, but whether this is due to unattractiveness of the service or to degeneracy of the race it seems difficult to determine. The Director-General is obviously of opinion that the fault lies at the door of puny development, and he suggests that a Medical Commission should be appointed to consider the problem. He says: "Information is wanted as to the causes of physical deficiency, and as to the best available methods of remedying defects and improving the natural health. Such an inquiry might fully be undertaken by a commission as to the composition of which the advice of the Colleges of Physicians and Surgeons might be asked. As the matter is one of the utmost importance from the recruiting point of view, it is suggested that the Secretary of State might take the initiative in the matter of getting the opinion of the councils of the colleges with

Digitized by Google

regard to (*a*) the necessity for such an inquiry, (*b*) the ground to be covered by a commission if appointed, (*c*) composition of commission."

South Australia.

(FROM OUR OWN CORRESPONDENT.)

The Suspension of Dr. Ramsay Smith—The Adelaide Hospital—The Dental Act—Public Health Matters.

DURING the last few weeks the suspension of the Coroner, Dr. Ramsay Smith, has chiefly occupied public attention. Dr. Ramsay Smith, it will be remembered, was imported with Dr. Leith Napier to take the places of the members of the honorary staff who had been driven to resign. Presumably the "contract clause" in the Federal Immigration Bill would prevent a repetition of such action on the part of a colonial Government. When Dr. Whittell died, Dr. Ramsay Smith was appointed Coroner. He retained charge of the isolation wards at the Adelaide Hospital. A few days before his suspension he presided at the inquest upon a woman who had died under an anæsthetic at the Adelaide Hospital. The operation was performed for acute peritonitis, following a radical cure of an umbilical hernia. Now, the rules of the hospital state that in all serious cases a consultation shall be held by the members of the staff. Dr. Giles, in view of the urgency of the case, did not deem a consultation necessary, as it would waste valuable time. In his summing up the Coroner animadverted on the manner in which the honorary staff performed their duties. At a subsequent meeting of the Hospital Board, Dr. Smeaton, the medical superintendent, explained that the hospital could not be carried on for an hour if the strictest interpretation were placed on this and other rules. He emphasised the necessity of performing certain operations at once, and urged that much valuable time might be lost in hunting up the majority of the members of the staff. As a matter of fact, consultations are by no means rarely held at the hospital. The Coroner jumped to an exactly opposite conclusion because no mention of such consultations was made in the consultation book. A few days after the inquest above mentioned another patient in the Adelaide Hospital died from sepsis, following on a double amputation of the legs after a railway smash. The patient, an adult, consented to the operation being performed. The permission of the friends was not asked, nor did Dr. Cavenagh-Mainwaring consider a consultation necessary, as the gangrene which had set in rendered amputation imperative. However, the Coroner thought that the friends should have been consulted and that Dr. Cavenagh-Mainwaring should have asked for the advice of his colleagues. Public interest, which had been much excited by the Coroner's remarks at the two inquests referred to, was still further aroused by the announcement a few days later of the Coroner's suspension. There was, however, no connection between his suspension and his attacks on the hospital staff, of which he was a member. The Government charged the Coroner with having illegally taken certain skeletons, with being illegally in possession of certain heads, with having taken improper advantage of his position as Coroner in certain inquests, and with having mutilated certain bodies so as to interfere with decent burial. After a heated correspondence between the suspended officer and the Government, the latter granted a Board of Inquiry. After a thorough investigation the Board has completely exonerated the Coroner from all blame. In a special report it is recommended that, in view of his many conflicting duties, Dr. Ramsay Smith should be relieved of duties as physician to the isolation wards at the Adelaide Hospital, Inspector of Anatomy, Vaccination Officer, the right to private practice as a consulting physician, and employment as a medico-legal expert. Dr. Smith has accordingly resigned from the Adelaide Hospital, and relinquished the posts of Inspector of Anatomy and Vaccination Officer. He has been reinstated as Coroner and as President of the Central Board of Health, with an increase in salary of £100 a year. The Attorney-General disagrees with the finding of the Board, and has given notice in the House of Assembly that he will introduce a bill to amend the Anatomy Act. The Ramsay Smith case has, unfortunately, aroused the angry passions of the old hospital dispute. It is to be hoped for the sake of the Hospital and the Medical School that things will quieten down again. There is some talk of an attempt being made to appoint Dr. Smith as consulting physician to the Adelaide Hospital.

Professor Watson has lately been appointed honorary consulting surgeon to the hospital. His appointment is not viewed with much favour by some of the members of the staff. They not unnaturally think that, as is the case in England, such an appointment should be reserved for those who have devoted a great part of their lives to the service of the hospital.

At the beginning of this year the Dental Act came into operation. A Dental Board was appointed to register applicants. In addition to those dentists who where properly qualified, the Board has power to register those who, previous to the passing of the Act, were engaged in the practice of dentistry. The "practice of dentistry" was not defined in the Act. The Board, to protect the public from charlatans, placed a strict interpretation on the words. An appeal to the Supreme Court by an applicant whom the Board had refused to register resulted in a verdict adverse to the Board; consequently, the Board resigned. It is the intention of the Government to introduce a bill to amend the Dental Act. A new board will be appointed to administer it.

The operating theatre at the Adelaide Hospital is very much out of date. The Board propose to spend £1000 in improvements. The medical superintendent, Dr. Smeaton, lately visited Melbourne and Sydney to inspect the operating theatres in those cities, and has returned with much valuable information.

The City Health Officer, Dr. Borthwick, and the Railway Commissioner caused a storm in a tea-cup a few weeks ago. The former had condemned a waiting-room in the Victoria Square railway station as being in an insanitary condition. The Commissioner denied the soft impeachment, and declined to remedy the condition of things. The City Council, however, supported their officer of health, and said that if the railway authorities did not mend matters, they would. In a bill shortly to be introduced by the Government it is proposed to give the Adelaide Corporation power to construct abattoirs. They are certainly needed. The by-law against spitting in the streets is being rigidly enforced as far as possible. Numerous neat admonitory notices are placed in conspicuous positions about the city.

N.S.W. MEDICAL UNION.

(To the Editor of the Australasian Medical Gazette.)

SIR,—I notice in the tenth annual report of the above Union that the advisability of reducing the subscription has been discussed. Might I suggest that something of the nature of a life membership be introduced, so that those who have borne the heat and burden of the day may be on more equitable terms with those just entering.

Digitized by Google

Ten annual subscriptions with entrance fee would, I fancy, be about a fair thing. A local wrangler has worked out for me and found that the actual value of such at 4 per cent. compound interest amounts to £14 13s 3·582d. This at 4 per cent. brings in 11s 8·78d annually, which would then be the member's subscription for all time. As this Union is purely for defence, it is not likely there would be a rush upon its funds, for no member particularly hankers after its monetary benefits, and the moral effect on the public of such an organisation would militate against the contingency of an epidemic of actions. It must appear evident to all that such a proposal by virtue of its equity and finality would offer greater inducements for increased membership, as well as preventing existing members from dropping out.—I am, etc.,

A. LIVINGSTONE KERR.

Granville, Sept. 29th, 1903.

[We have submitted the above letter to Dr. W. H. Crago, hon. treasurer of the N.S.W. Medical Union, who writes, that "the proposal to limit the annual subscription to ten years was discussed at the annual meeting held in 1902 and was negatived. Your correspondent's statement about 'it being improbable that there would be an epidemic of actions occurring' has been disproved by the experience of the current year, as up to the present time the Union has been called upon to assist four members involved in legal actions, which will absorb a large proportion of the year's revenue."—ED. *A.M.G.*]

OLLA PODRIDA.

(To the Editor of the Australasian Medical Gazette.)

SIR,—Perhaps the disjointed remarks which follow may prove of interest to the general practitioners. Like many of the latter, encouraged by your sympathy, I am doing my best to get better terms from the lodges and to prevent from joining these semi-charitable organisations those who are ineligible on the score of earning over £2 a week.

Visitors to my district.—Now and then a clubber or his family come here for health reasons. They look up the club secretary, who gives them a line to me asking that, "as an act of courtesy to the local lodge," will I admit bearer to my list? My enquiries and examination are too strict for any so far to have got on the list. From a back mining place in New South Wales came a female with an infant undoubtedly ill, as I saw on insisting that the baby be shown me. Result: I refused to look on them as fit to go on my list, "not even for three months." I got a small fee, £2, shortly, from them for treating the baby; instead, it would have been 5s. From West Australia came a man suffering, I heard, from loco. ataxy, who wrote asking the local secretary to put him on my list. I, of course, refused, and had the bulk of the lodge members with me, only the immediate friends of the patient growling a little. He had done well in West Australia, mining. Lung hæmorrhages, etc., in fact, any trouble which would prevent a person from acceptance by an insurance company, are sufficient to render them unfit to get treatment at lodge rates.

Printed rules of lodges.—I only go by the agreement drawn up between myself and the lodge. I hear of medicoes abiding, in case of dispute, by the lodge rules; but we, as a body, have had no say in the forming of these rules, and, although they may be a guide, I think it best to wait and hear what the executive of the Defence Association decides when I appeal to them.

Faithful service is no guarantee of fixity of tenure.—I have seen so many doctors compelled to resign lodge appointments for trivial reasons, or for the grave reason of a colleague offering his services at 1s a head cheaper, that I take every opportunity of letting private patients know by my actions that lodge patients get what they pay for.

"Nicest lodge patients."—The "nicest" people in lodges are the poorer class, viz., the labourer, mechanic, miner. The wealthier, so far as I can gather, are invariably the leaders in any movement against us, and the hardest to please. It may be because we feel it due to the poor to treat themselves with civility and their diseases with care; but do we, such of us who are not quite medical hawks, even try to do our best for that class who have no right to accept assistance from a semi-charity?

Abortion seekers.—The daily papers often publish reports showing that members of our profession are suspected of having had a hand in murder. A girl, young and beautiful, "has missed a period or two. Oh! I think I caught a cold at the races, etc., and so anxious about myself!" You see no reason why this should be so; why this anxiety, and no bodily suffering, no anæmia, hæmorrhage, etc.; in fact, you "drop" to what's the matter, and soon the woman is appealing to you to save her name. A careful study of cases occurring during many years has shown me that only once did a woman on whom abortion had been performed with dire results withhold the name of the operator. If all goes well, you do not get any credit, and no cash unless prepaid; if septicæmia sets in, you are ruined. Save your own reputation, and show them to the door!

Medical men stand alone.—Brethren, has it never struck you how lonely we are? Have you not noticed that patients and their friends have had words to say about your colleagues; that they try to put their burdens on your shoulders, viz., they wait for you to order distant relatives to the sickroom; for you to order the will to be drawn up; for you to make a prophesy, which they will search closely in order to find a flaw in it? For some reason we are, as a body, intensely hated by the general public; perhaps less so since we are known to have a Medical Defence Association binding us together.

Brethren, stand together.—I recently refused an "appointment" as medical officer to a lodge whose canvassers were working the country towns on commission. I reckoned we had enough lodges already, and knew it meant more canvassing among those already established to keep ahead of the new "order." I was threatened with opposition; "the young doctors, just passed, would be glad to come." My colleagues (we had pre-arranged to discourage the formation of new lodges or to lower rates in the old ones) likewise refused to have anything to do with it. Two years have passed, and the lodge, if it exists, certainly does so without a doctor's help. Now, had we been weak-kneed, undoubtedly our incomes would have been much reduced, as a consequence, "one thousand."—I am, etc.,

AQUA.

Victoria, September 14th, 1903.

SYDNEY AND SUBURBAN PROVIDENT MEDICAL ASSOCIATION.

THE Annual Meeting of the Active and Consulting Staffs will be held at 121 Bathurst Street, Sydney, on Tuesday, 27th October, at 8.30 p.m. Business: To receive the annual report; the election of office-bearers for the ensuing year. To be followed by a meeting of the Medical Profession at 9 p.m. Business: To receive the report of the working of the Association for the past year.

A. ACLAND O'HARA, Hon Sec.

Digitized by Google

PUBLIC HEALTH.

New South Wales.

Report on an Outbreak of Diphtheria and "Sore Throat," due to Milk contaminated by Persons showing no Clinical Manifestations of either Morbid Condition. (October, 1902.)

By E. S. STOKES, M.B., Ch.M., D.P.H.,

Assistant Medical Officer of Health, Metropolitan Combined Sanitary Districts, Sydney, N.S.W.

Scene of Outbreak.—Parramatta, the scene of the outbreak, is in an extra-metropolitan suburb, about 14 miles from Sydney, situated on, and immediately above, the navigable portion of a river of the same name which discharges into Sydney Harbour. The town is the business centre of a fruit-growing and agricultural district, and is built upon a fairly stiff clay soil. The water supply at present is the same as that of the metropolis, an upland surface water of great purity. A conservancy system prevails, metal pails, holding about one cubic foot, being employed. These pails are emptied weekly, and their contents removed in night-carts to a depôt three miles from the town. House slops and liquid wastes are thrown out on the ground or into drains discharging into the street gutters. These liquids ultimately disappear by absorption or evaporation, or at times by flowing into the river. House garbage is also removed weekly and deposited in a tip on the outskirts of the town.

The population of the town numbers 10,144, exclusive of the inmates of Government institutions (hospital for insane, gaol, benevolent asylums and industrial schools). The number of houses is 2200, and the dwellings generally are detached and surrounded by ample ground. Shops and other business places are collected in one locality, and, of course, occupy a more limited area with less open space around. The density per acre for the whole town is four persons.

The town is incorporated as a borough under the Municipalities Act, and the council is the local authority under the Public Health Act. Regulations under the latter Act provide for the notification of scarlet fever, diphtheria, enteric fever and plague. Notifications are directed to the local authority in the first instance. They are then sent to the Medical Officer of Health, and after record by him are transmitted to the central bureau, the Department of Public Health.

The conditions under which the people live may be said to be generally semi-rural, and the district is regarded as a healthy one. The following table shows the annual number of cases of the notifiable diseases, and also various death rates for Parramatta for the years 1898 to 1901:—

	No. of Cases.			Death Rates				
	Scarlet	Diphtheria	Enteric	General	Zymotic	Diarrhœa	Tubercular	Infantile
1898	34	4	10	10·61	1·39*	—	2·08	137
1899	8	—	6	11·48	·43	1·13	1·56	108
1900	8	—	17	12·97	·72	1·53	2·43	151
1901	11	10	14	14·29	1·38	1·18	1·97	134

* Including diarrhœal diseases.

Up to October 15th, 1902, five cases of scarlet fever, the last being on October 1st, had been notified since the beginning of the year. Ten cases of enteric fever were similarly recorded, and eight of diphtheria. These latter cases occurred for the most part singly, and at distant intervals of time, and showed no tendency of grouping in any particular locality.

It is impossible to bring forward any exact evidence as to the number of "sore throats" in the borough prior to the epidemic, but from information received from the local practitioners it seems that no unusual incidence of this class of disorder had been noted by them before the period under consideration.

The Outbreak.—The certificates received from Parramatta in October showed that, from the 8th to the 20th, 49 cases of diphtheria had occurred in the borough. The first eight certificates were to hand on the 15th, and stated that the majority of these patients obtained their milk from a registered dairyman (A) in the town. I was thereupon instructed by the Medical Officer of Health for the Metropolitan Combined Sanitary Districts (Dr. W. G. Armstrong) to visit Parramatta and institute enquiries into the matter. Shortly afterwards two inspectors from the Medical Officer of Health's staff were detailed to make a house-to-house inspection of the premises occupied by the customers of A, a list of whom had been obtained from A by the local authority, under the provisions of the Dairies Supervision Act. These officials were directed to obtain information as to the present or recent occurrence of throat affections amongst the members of the various households, and also to ascertain other facts, especially as to the boiling of milk, condition of the premises, etc. These enquiries were not completed until October 23rd. I myself visited the dairy premises and all the houses in which cases had been notified as having occurred, and also others in which, from information locally received, it was suspected that cases existed or had occurred.

The following table shows the daily number of cases of diphtheria and "sore throat" that constituted the outbreak, together with their milk supply:—

Date.	Diphtheria. Milk. A	Diphtheria. Milk. Other Sources.	Sore Throat. Milk. A	Sore Throat. Milk. Other Sources.
October 7 ..	—	—	1	
,, 8 ..	3	—	4	
,, 9 ..	8	1	8	
,, 10 ..	2	—	9	
,, 11 ..	6	—	4	
,, 12 ..	8	1	3	
,, 13 ..	6	—	10	
,, 14 ..	6	—	5	
,, 15 ..	—	—	6	
,, 16 ..	1	—	—	
,, 17 ..	—	—	2	
,, 18 ..	3	—	—	
,, 19 ..	1	—	4	
,, 20 ..	2	1	4	
,, 21 ..	—	—	1	
,, 22 ..	—	—	—	
,, 23 ..	—	—	4	
Totals ..	46	3	65	
,, Diphtheria	49			

(Sore Throat. Milk. Other Sources: See below.)

These dates refer to the days of attack as ascertained after inquiry at each house, and are the days said to be those upon which the patients first complained of feeling ill, or, in the case of young children, upon which a departure from normal health was first observed.

A house-to-house inspection of the whole borough was out of the question, and, therefore, it is impossible to give any figures as to the number of cases of "sore throat" occurring in households supplied by other dairymen. However, information was kindly afforded by the local practitioners to the effect that no unusual

Digitized by Google

number of cases of "sore throat" in which the milk was supplied by dairymen other than A has come under their observation during the period in question. This statement carries extra weight in view of the facts that a large number of families in the borough belong to lodges, and that lodge patients have a tendency to avail themselves of the services of their medical officers for minor illnesses.

The following table gives the age and sex distribution of cases of both disorders:—

Age.	0-5 years.		5-15 years.		15-25 years.		25 and over.		Not stated.		Totals.		
Disease.	Diphtheria	Sore Throat	Diphtheria	Sore Throat	Diphtheria	Sore Throat	Diphtheria	Sore Throat	Diphtheria	Sore Throat	Diphtheria	Sore Throat	
M. ...	3	7	7	12	15	6	—	4	—	3	25	32	57
F. ...	6	2	9	13	5	14	4	3	—	1	24	33	57
Totals	9	9	16	25	20	20	4	7	—	4	49	65	114
	18		41		40		11		4		114		

It will be seen that the age groups 5-15 and 15-25 bore the brunt of the epidemic, The difference between the incidence upon the sexes in these groups is not noticeable, but the group of 13 males from the K. School, to be mentioned later, must be taken into consideration in this connection. Were it not for these cases the number of females would have preponderated, a point that has been noticed in milk-spread epidemics. The total number of cases of both affections is seen to be equal in both sexes.

The 49 cases of diphtheria were distributed amongst 26 houses thus:—

In one house	.. ..	13 cases occurred
,, ,,	.. ..	4 ,,
In each of 3 houses	..	3 ,,
,, 2 ,,	..	2 ,,
,, 19 ,,	..	1 case occurred

Average per house, 1·88.

Also, the 65 cases of "sore throat" were found in 51 houses:—

In one house	.. .. ..	4 cases occurred
,, ,,	.. .. ..	3 ,,
In each of 9 houses	.. ..	2 ,,
,, 40 ,,	.. ..	1 case occurred

Average per house, 1·26.

Included in the above tables are four houses in which cases of both affections occurred, namely:—

No.	Diphth.	Dates of Attack.	Sore Throat.	Dates of Attack.
1	1	Oct. 12 ..	1	Oct. 9
2	1	Oct. 9 ..	2	Oct. 6, 9
3	3	Oct. 10, 13, 20	2	Oct. 8, 13
4	3	Oct. 8, 8, 9 ..	4	Oct. 8, 10, 11, 13

And making due allowance for these, we find that the total number of cases (114) are distributed amongst 73 houses in the following manner:—

In one house	.. ..	13 cases occurred
,, ,,	.. ..	7 ,,
,, ,,	.. ..	5 ,,
,, ,,	.. ..	4 ,,
In each of 3 houses	..	3 ,,
,, 10 ,,	..	2 ,,
,, 56 ,,	..	1 case occurred

It will thus be seen that there was a very large proportion of multiple attacks in houses, *i.e.*, 58 cases in 17 houses. None of these 58 can, with any certainty, be regarded as secondary cases (*i.e.*, infected directly from previous cases); indeed, in a few only can such possibility be even entertained.

Swabbings from the throats of 18 of the notified cases of diphtheria were submitted for examination to the central authority, the Department of Public Health. The report received from the department showed that the Klebs-Lœffler bacilli were present in 14 cases. Similarly, swabbings were examined from eight of the cases of "sore throat," and amongst these the bacilli were found in two cases, both in houses from which cases of diphtheria had been notified.

The houses in which the cases occurred were widely distributed over the whole borough.

The type of disease was very mild, only three deaths occurring amongst the 49 cases of diphtheria.

The epidemic was limited to the period from the 7th to the 23rd, but the height was between the 8th and 14th, during which time 39 cases of diphtheria and 43 of "sore throat" were recorded. The last cases of diphtheria were attacked on the 20th, and, as far as the available information went to show, no fresh cases of "sore throat" occurred after the 23rd. As will be shown later, these dates are of considerable importance when compared with certain events at A's dairy. The above dates marked the determination of the epidemic. Since then only two cases of diphtheria have been notified, one on November 1st, in the person of an infant whose mother was attacked on October 13th (evidently a case of direct personal infection), and the other late in November. In this latter case the milk supply was from a source other than A, and there is no reason to believe that this case was directly connected with the epidemic under consideration.

Source of Infection.—In seeking for the source of infection attention was given to certain factors which are recognised as prominent in the dissemination of diphtheria:—

1. *Previous Existence of Diphtheria in the Borough.*—Diphtheria may be said to be to some extent endemic in Parramatta. As has been stated, in 1902, up to the date of the commencement of the epidemic under consideration, eight cases were notified, the last one occurring four weeks before that date. These cases cannot be considered to have any essential connection with the outbreak.

2. *School influence* played no primary part in the causation of the epidemic. As will be shown, only one case could be attributed to infection received from such source. The patients of school age attended six different schools in the borough.

3. *Direct personal infection* can be similarly disregarded. Obviously the cases as a whole did not thus become infected.

4. *Meteorological conditions* at and before the date of the outbreak may be noted On October 13th a heavy fall of rain was recorded. For some months previous to this the weather had been exceptionally dry. These incidents do not afford any explanation of the cause of the epidemic.

5. The *sanitary condition of the premises* was good in the large majority of affected households.

6. There remains, then, the consideration of the *milk supply.* The milk supply of the borough is derived from nine registered dairymen in the borough and from a certain number in the outlying districts. In addition, a few families are served by their own cows. It has been shown *(vide* Table A) that of the 49 cases of diphtheria, 46 in 23 houses received milk from a registered dairyman A, and it has also been shown that concurrently with these cases 65 persons in 51 houses, who were also customers of A, suffered from "sore throat." A was ascertained to have supplied milk during the earlier periods of the epidemic to 168 households containing about 800 inmates. Of these 168, 19 households presented 38 cases of diphtheria, 47 presented 56 cases of

Digitized by Google

"sore throat," and 4, 8 cases of diphtheria, together with 9 of "sore throat." This gives a total of 70 households in which diphtheria or "sore throat" occurred amongst the 168 supplied by A. As 73 households altogether were affected, it will be seen that 96 per cent. of these affected households were supplied by A.

Included in the above 70 households are 4 (yielding 16 cases of diphtheria) which were not regular customers of A. In these instances a small quantity of milk was obtained from A either directly or through a neighbour, and in one case (N.M.) the patient was at service with a family who had obtained milk directly from A. These instances are of importance, and may be given in detail.

1. K. School. About 200 boy scholars, including 100 boarders; usual milk supply from own cows; from 6th to 9th October inclusive, on account of shortage of own supply, several gallons daily were obtained from A; no information was available as to which of the boys drank this milk; probably it was not mixed with other milk; on the 11th, 5 boys were attacked; on the 12th, 3; on the 14th, 4; on the 18th, 1—13 in all; boys affected were distributed in five domitories; possibly later cases on the 14th and 18th were secondarily affected from the earlier ones, who were not seen by a medical man and isolated until the 13th; all the patients were about 15 or 16 years of age.

2. L.B., female, 14. Attack 17th; frequently obtained small quantities of milk from next door neighbour, who was supplied by A.

3. A.J., male, 15. Attack 16th; regular milk supply from D; on 13th mother of patient obtained one pint of milk from her next door neighbour, whose supply was from A; this pint was consumed on the morning of the 14th by the parents and two children (including A.J.); on the morning of the 16th A.J. was taken ill. In connection with this case it may be noted that a boy aged five in this neighbour's house was taken ill with diphtheria on the 13th.

4. N.M., female, 15. Attack 13th; at service for one month previous to date of attack; milk supply at home from B, at place of service from A and C; temporarily relieving her sister, who was taken ill with diphtheria at same place of employment on September 12th; this latter girl went home for treatment.

In both these latter cases, A.J. and N.M., the possibility of direct infection from antecedent cases must be taken into consideration. As regards A.J., I could not learn of any direct association with the case next door; and, in the other instance, this possibility is to some extent negatived by the fact that N.M. was said to have been prevented by her employers from associating with her sister whilst absent from work during illness.

No evidence of the possibility of such direct infection was forthcoming in the cases of K. School and L.B.

The three cases of diphtheria which were not supplied by A also call for some comment:—

1. R.P., male, 6½ years. Attack 12th; milk supply from B; was at school up to the 10th, and also for half day on the 14th; same class as children from a house in which three cases of diphtheria and four cases of "sore throat" had occurred; these children last attended school on the 8th. In this case the infection was probably received at the school.

2. W.P., female, 1 year. Attack 20th; milk supply from B; no ascertainable connection with any recognised case of diphtheria; visitors to the house were in the habit of kissing this infant; at this date the infection was widely spread, and it is possible that the disease was in this case conveyed by some visitor who indulged in this undesirable practice.

3. M.M., female, 27 years. Attack 9th; milk supply from E; no evidence discovered to indicate or suggest source of infection; E denied having obtained any milk from A for at least one month previously.

The result of the enquiries as to the habits of the 168 households with regard to the regular boiling of milk or otherwise showed that 121 did not boil or only occasionally boiled the milk, and that 43 boiled it regularly. In the remaining four cases no details of action in this respect were forthcoming.

It was ascertained that amongst the 121 families who did not boil the milk 19 were attacked with diphtheria alone, producing 38 cases, and 37 with "sore throat" alone, producing 43 cases, and 4 with both affections, producing 8 cases of diphtheria and 9 of "sore throat." Amongst the 43 who boiled the milk, no cases of diphtheria were recorded, and only 13 cases of "sore throat" in ten houses. In the remaining four houses no cases of either disorder were heard of.

These figures are shown in the following table:—

		Diphtheria alone.		"Sore Throat" alone.		Both Conditions.		Total.	
		No.	%	No.	%	No.	%	No.	%
Houses not boiling milk	121	19	15·7	37	30·5	4	3·3	60	49·7
Houses boiling milk ..	43	0	·0	10	23	0	·0	10	23

It will thus be seen that of the houses not boiling milk 15·7 per cent. were affected with diphtheria alone, 30·5 with "sore throat" alone, and 3·3 per cent. with both disorders. Practically half the households (49·7 per cent.) not boiling milk were affected with one or other condition. On the other hand, of the number boiling milk none were attacked with diphtheria, and only 23 per cent. with "sore throat." Possibly this latter figure may be taken to indicate that the boiling was not carried out with the degree of thoroughness necessary to destroy the specific organisms of diphtheria, or not with the regularity alleged, or that the milk was in part drunk on delivery before boiling.

I have no evidence to indicate that households in which large quantities of milk were consumed, or in which the milk was stored overnight, suffered disproportionately.

A consideration of the above account will show:—

1. That an epidemic of diphtheria and "sore throat" occurred in Parramatta between the dates October 7th and 23rd, 1902.

2. That the onset was sudden, that the epidemic was at its height during the first week of the above period, and that the cessation was almost as rapid.

3. That endemicity, direct personal infection, school influence, meteorological conditions and sanitary conditions of houses can be excluded from the list of possible casual factors.

4. That multiple cases occurred in 17 out of the 70 houses, and that these cases constituted more than half of the total number.

5. That households boiling the milk showed a much lower proportion of attacks than those who neglected this precaution.

6. That the attacks were usually of a mild nature, and that the diseases showed no marked proclivity to spread by direct personal infection.

7. The infective agent was operative for a limited period of time only.

8. That 96 per cent. of the affected households derived their milk supply directly or indirectly from one dairyman (A).

The conclusion, then, is inevitable that the epidemic was caused by infection disseminated in the milk supplied by A.

A's Dairy.—We can now pass to a consideration of A's dairy and give the result of investigation made in this direction.

Digitized by Google

On October 15th I visited the dairy and examined the premises, and the cows, and also the residents and employees. The premises were found to be in a fair condition, and call for no special remarks. The cows, 21 in all, were in good condition, with the exception of one recently calved. This cow was a new arrival on the farm, and was rather poor. She presented several fissures and small healing ulcers on the teats. A drop of pus was taken from beneath one of the scabs, and submitted to the Department of Public Health for examination. The departmental report on this specimen showed that the staphylococcus pyogenes aureus was present in the cultures made therefrom, but no Klebs-Lœffler bacilli. By direction of the President of the Board of Health the dairy herd was examined by the Chief Veterinary Inspector, who reported with regard to this cow:—"There is no evidence of any definite eruptive affection. She appears healthy. The sores were, I think, caused by the calf's teeth, and the scabs, breaking away at each milking, have delayed healing." A was directed on the 15th to immediately discontinue supplying the milk from this cow.

The residents on the farm were the dairyman, his wife, three children (two boys and a girl), and two male employers aged 20 and 14 respectively. Each of these was carefully examined, and all were found healthy, with the exception of the girl, aged nine. Her tonsils were slightly swollen and congested, and her tongue coated at the base. Her temperature was normal. She presented the appearance as if she had recently had some inflammatory condition of the tonsils. Otherwise she seemed in fair health. It was strenuously denied that she had been through any recent illness, and a personal examination of the school register showed that she had not been absent. It was similarly denied that any of the other persons on the farm had been ill in any way. On October 16th swabbings were taken from the throats of all the above persons, and submitted for examination to the Department of Public Health. On the 17th the examinations were sufficiently advanced to demonstrate the existence of the Klebs-Lœffler bacilli in the specimens taken from the throats of the wife of the dairyman and an employer, M.C., aged 20. The results were negative in respect to the other persons.

A specimen of milk was taken on October 15th from A's cart during the ordinary course of delivery, and was also submitted to the Department of Public Health for bacteriological examination. The results of such examination were, however, negative as regards the finding of the Klebs-Lœffler bacillus.

As soon as it was shown that two persons on the farm were carrying the Klebs-Lœffler bacillus in their throats, the local authority was advised to require A:—

1. To send at once his wife and family (on account of the children being of an age which renders them peculiarly susceptible to diphtheria), together with the employer, M.C., away from the premises, and to dissociate them completely from the business.

2. To take immediate steps to disinfect the whole premises, including the dairy proper and the dwelling with its contents.

These requirements were asked for on October 17th, and were immediately carried out by A, under the supervision of the officers of the local authority.

The departmental report in connection with the examination of the throat swabbings from the persons on the dairy states that the bacilli isolated from M.C. were inoculated into a guinea pig. The animal died in 72 hours. The post-mortem examination showed the usual appearance of diphtheria in guinea pigs, and the bacilli were recovered from the site of inoculation.

Both A's wife and the employee M.C. were engaged in milking the cows and distributing the product. It was alleged that none of the children came into contact with the dairy business in any way. M.C. had been in A's employ for some months.

The questions now arise (1) as to the origin of the materies morbi with which the milk was contaminated, and (2) as to the manner in which such matter reached, or was conveyed into, the milk.

1. At first sight it appeared as if the cow with the ulcerated teats might have been the cause of the trouble, but this supposition was negatived by the bacteriological examination of the pus from the teat, and by the opinion of the Chief Veterinary Inspector.

No insanitary condition of any importance was noted on the premises. The premises themselves can therefore be excluded from the category of possible sources of infection.

No conclusive evidence was adduced to show that any of the persons on the farm had at any immediately recent date suffered from diphtheria as recognised clinically. The girl abovementioned may possibly have experienced some very slight inflammatory conditions of the tonsils, the exact nature of which, whether specific or otherwise, can only be the subject of hypothesis.

Lastly, it was demonstrated that on the 16th October two persons on the farm who were, and had been for some time past, in perfect health (I am satisfied that there is no room for doubt on this point), and who were intimately associated with the milk business, were carrying in their throats the Klebs-Lœffler bacillus. In the case of one of these persons the bacilli were found to possess virulent properties.

The above described circumstances warrant the assumption that the infective properties of the milk were derived from the throats of one or both of these persons.

2. It does not seem difficult to perceive that there were several routes open and available for passage of the organisms from the mouths of these persons to the milk. The acts of laughing, sneezing, or even talking have been shown to be sufficient to propel organisms from the mouth and nose for some distance through the air. Dirty personal habits, such as spitting on the hands or blowing the nose with the fingers, are not unknown. Also the employee, M.C., was a heavy cigarette smoker, and this habit usually entails a constant application of the hands to the mouth.

Other interesting points which, from their nature, cannot be satisfactorily explained occur in this connection. I refer to the facts that one of these two persons was carrying the Klebs-Lœffler bacilli in a virulent form in his throat without evincing any symptoms of the disease, and also that the milk possessed infective properties for a strictly limited period of time only. For the former I can offer no reasons. The termination of the period of infectivity of the milk can be accounted for by the withdrawal of what was considered to be the source of infection. This withdrawal took place on October 17th; after that date six cases of diphtheria were reported up to the 20th, and 13 cases of "sore throat" were ascertained to have occurred up to the 23rd. Accepting the extreme limit of the incubation period as seven days, it will be seen that all the cases occurring after the 17th may have received the infection at or even a day before that date. But, on the other hand, no data were available to indicate why the milk should have become infective at the time (*i.e.*, early in October) when it evidently first possessed these characteristics.

Conclusion.—In conclusion, it appears evident that the epidemic resulted from the contamination of A's milk by the bacilli of diphtheria, derived from the

Digitized by Google

throats of one or two persons on the farm, who themselves presented no indications of suffering or having recently suffered from diphtheria.

COMMENT.—I have not been able to discover any record of a milk-borne epidemic of diphtheria in which the affection was shown to have reached the milk from similar source. The late Mr. Ernest Hart (B.M.J., 1887, vol. i., p. 1167) gives a summary of 14 milk epidemics of this disease. Of these 14, four were believed to have originated from milk contaminated by the morbid secretions or discharges from cows' teats, four from milk from dairies on which cases of diphtheria existed, and one from milk contaminated by sewage-polluted water. In the remaining five the source of the infection could not be determined. Possibly had swabbings from the throats of persons employed on the dairies been examined bacteriologically some facts might have been rendered available which would have served to give definite indications as to the origin of the infection in these milk epidemics, and which would have placed them in a more satisfactory list than "not determined."

Much prominence has been given to pathological conditions of the udder and teats of cows in relation to milk diphtheria, the late Sir Richard Thorne (Milroy Lectures, 1891, p. 192) going so far as to almost lay down a dictum that some cow ailment, so trivial even as to be ignored by veterinerians, is always associated with milk diphtheria. Were such circumstances, however, the cause of the disease in human beings, it is strange that the B diphtheriæ could not have been demonstrated in the bovine lesions. No record of a discovery of this nature appears to have been published until so late as April, 1902, when Drs. Dean and Todd (*Journal of Hygiene*, vol. ii., No. 2, p. 194) give an account of the finding of the B diphtheriæ in the secretion from mammary ulcers, and in the milk of naturally infected cows. Their subsequent experiments, however, led them to the conclusions that there was present in the cows a specific contagious eruptive condition apart from the diphtheritic infection. They conceive that the pathological lesions in the cow if infected with the B diphtheriæ might form a suitable nidus for its growth, and permit of the infection of large quantities of milk over a considerable period, and they regard it as quite possible that the B diphtheriæ may be derived from the throats of the milkers, who, although apparently quite healthy, may be the hosts of the organism (*ibid.*, p. 204).

It may be considered that the epidemic under review exemplifies the truth of Thorne-Thorne's conviction as regards the constant relationship between milk diphtheria and cow ailments, but it is well known that it is almost impossible to examine a mixed herd of cows and not discover some lesions such as small fissures or abrasions of the teats in an odd beast or so. These affections are very common in newly-calved cows, especially young ones, and usually heal up in a few weeks. There seems to be no reason why diphtheria should originate from these simple conditions any more than from similar lesions found in the human female when suckling an infant, and in the latter case the contact is infinitely more direct.

The interpretation given by Drs. Dean and Todd of the dual nature of the infection of the cows examined by them appears sufficient, as far as the cows are concerned; but it seems somewhat like going round three sides of a square to seek for explanations of milk diphtheria in pathological conditions of udders, primarily not diphtheritic, but secondarily infected directly from a human source, when, since the human source is admitted, many immediate routes are open for the passage of the organisms from their hosts to the milk.

The probable nature of the "sore throat" that constituted an important part of the present epidemic is worthy of some consideration. It has already been stated that a large number of these cases occurred concurrently with the notified cases of diphtheria, and that these cases were limited, as far as could be ascertained, to households supplied with milk by A. And it has also been pointed out that in four households, cases of both affections existed practically synchronously, and that in two instances the Klebs-Lœffler bacillus was demonstrated by suitable examination; also the results of enquiries in reference to the boiling of the milk show that a much smaller proportion of those who were stated to have boiled the milk suffered with "sore throat" than of those who neglected this measure. In all probability, then, these cases of "sore throat," a number of which were designated by the frequently used but highly unsatisfactory titles of "diphtheritic sore throat" or "ulcerated sore throat," were mild cases of diphtheria.

Other subsidiary points deserving of note are:—

1. The low mortality: under 6 per cent. for the cases of diphtheria, and under 2·7 per cent. for the whole group of cases.

2. The low infective power of the established disease.

3. The absence of any scarlet fever during the progress of the epidemic.

Health of the Metropolis.—From the report of the Medical Officer of Health for the month of September, 1903, we learn that the number of deaths in the metropolis, after distributing deaths in hospitals to their proper districts, was 433. The number is less than that recorded in any previous month of the current year, and corresponds to an annual death rate, on the estimated mean population of the year, of 9·28 per 1000 living. Of children under one year of age there were 84 deaths, which, on 1038 births, the number registered during the month, corresponds to an infantile mortality rate of 80 per 1000 births. Diarrhœal diseases (diarrhœa, dysentery, infantile cholera, and enteritis) caused 19 deaths, of which 14 were those of infants under one year old. The figure is greater than the quinquennial average for September (11). Zymotic diseases, except diarrhœa, caused 17 deaths, of which two were due to scarlet fever, two to influenza, five to whooping-cough, seven to diphtheria and one to typhoid fever. The number of deaths for the month under this heading is lower than in any September during the quinquennium. Phthisis caused 44 deaths; cancer, 30; Bright's disease, 28; heart disease, 40—none of these numbers denoting any departure from the usual monthly mortality. The experience of August, as regards respiratory diseases, was repeated, the mortality from these causes being again very low for the season of the year. The total number of deaths from these causes was 54, of which 30 were due to pneumonia and 17 to bronchitis. The notified attacks from notifiable infectious disease numbered 264, of which 190 were scarlet fever, 53 diphtheria, and 21 typhoid fever.

Theatre Sanitary Accommodation.—At a meeting of the Health Committee of the Sydney City Council last month a report was received from the City Health Officer (Dr. W. G. Armstrong) in regard to the condition of the sanitary accommodation and conveniences provided in connection with the theatres and public halls of the city, as disclosed during a recent visit of inspection which had been made by him. In some instances the accommodation was totally inadequate.

Bubonic Plague.—The crusade against rats and mice in the metropolis is still maintained with undiminished vigour. This is due to the capitation grant given by the Board of Health. The number killed each

Digitized by Google

week since the commencement of August is as follows: Week ending August 8, rats 2343, mice 1413; August 15, rats 2032, mice 1225; August 22, rats 2320, mice 1192; August 29, rats 2071, mice 885; week ending September 5, rats 2312, mice 1063; September 12, rats 2007, mice 1183; September 19, rats 2196, mice 760; September 26, rats 2354, mice 1174. The number of rats paid for each week at the Redfern depôt, where they are destroyed in an incinerator, ranged from 1544 to 1876, and in the case of mice from 502 to 1122.

Prosecutions for Adulterated Food.—At the meeting of the City Council on October 6, Alderman R. D. Meagher drew attention to the prosecutions initiated by the City Health Officer against persons for selling adulterated articles of food, and moved—"That for the proper discharge of full responsibility by the City Council in connection with the Public Health Act, a memorandum should be presented to every meeting of the Health Committee, for subsequent report to the Council, setting forth the names of persons from whom adulterated articles have been obtained by the Council's officers, the cases in which summonses have been issued in respect thereof, and also the instances in which prosecutions have not been initiated, and the reasons thereof." The motion was carried.

Victoria.

Victorian Milk Supervision Bill.—A Milk Supervision Bill has been drafted by Dr. Gresswell and submitted to the Cabinet for approval. It provides that the Board of Public Health shall administer the Act, that Melbourne and its suburbs and a wide radius whence these derive their milk supply shall be created a "milk area," and that on the application of the municipalities any other portion of Victoria may be declared a milk area; that within any milk area, dairy farms and dairies shall be registered; that the board or councils may prescribe by-laws in regard to construction, lighting, ventilation, drainage of dairy buildings; that twice in each year the dairyman shall have his milking herd examined by a veterinary practitioner; that milk produced outside a milk area cannot be sold within it without a license; that veterinary practitioners shall be required to report all animals which in their opinion show symptoms of disease; that dairymen also must report diseases amongst their farm animals or in their households or amongst their employees.

A bill with these provisions should go a very long way towards securing a pure milk supply for Melbourne and suburbs, and we hope it will be passed by Parliament without any serious amendments.

West Australia.

Bubonic Plague.—A Chinese market gardener, of the Highgate Hill suburb, died of bubonic plague at the Perth Hospital on September 29th. The deceased was brought to the hospital and admitted. The fact that he was suffering from plague was not discovered until a few hours before his death. The hospital has been quarantined. Another Chinese market gardener died of plague in South Perth on October 7th.

Tasmania.

The Smallpox Outbreak in Launceston.—Dr. McCall, the Chief Secretary, has stated that no time would be lost in instituting inquiry into the cause of the recent smallpox outbreak, and that Mr. Dyer, Dr. Elkington's chief clerk, would act as secretary to the commission.

Medico-Ethical and Medico-Legal.

Charge of Negligence against a Surgeon.—In the Supreme Court, Sydney, on September 18th, an action was brought by George Folkard against Reginald Bowman, surgeon, to recover compensation for alleged negligence on the part of the defendant in dealing with an injury to one of plaintiff's legs. Mr. Wade, in opening the case, said that on November 1st, 1901, plaintiff was driving in Parramatta, and while getting out of his buggy he was thrown down owing to the horse starting suddenly, and he sustained an injury to the left leg. Plaintiff was taken to the hospital, and the defendant was sent for. Upon examination it was found that the leg had sustained a double fracture between the knee and the ankle. Dr. Bowman adjusted the fracture and put the limb in splints, and the complaint made against him was at that particular time, or shortly afterwards, defendant, instead of putting the bones end to end, so as to ensure a proper joining of the fractured portions, they were so fixed that one overlapped the other by an inch and a half or two inches. Plaintiff was practically laid up for about 18 months, and had to undergo another operation in the Sydney Hospital, and he complained that this operation was rendered necessary by the want of professional skill and care on the part of the defendant. Damages were laid at £1000. After the evidence for the plaintiff had been given, Mr. G. H. Reid moved for a nonsuit, and submitted that there was no evidence to justify the case going to the jury. The Acting Chief Justice asked Mr. Wade where there is any evidence of malpractice? Mr. Wade submitted that there was ample evidence to show that the fracture was of such a character that there was nothing to prevent the bones being set end to end and the fracture reduced. The evidence went to show that the only way in which a medical man could be absolved from neglect was by showing that there was a large amount of swelling, bruises, or contusions or laceration of the muscles, and blisters; but these symptoms did not appear in this case. His Honor said he was very loth to withdraw a case of this kind from the jury, but he could see no evidence whatever of any neglect or wrongful act. All that had been dealt with had been mere generalities, and Mr. Wade could not point to one witness who had stated that the treatment of the plaintiff by defendant was wrong in any respect. The case could not be decided on a mere conjecture that there had been some act of omission or actual malpractice. As far as there was any evidence, nobody could tell how this shortening of the limb was caused. It was a scientific matter, and the evidence was as consistent with the absence of negligence as with negligence. Plaintiff was bound to establish his case to the satisfaction of the jury, and he confessed that he could not see what act of negligence was relied upon. All the medical witnesses called stated their absolute inability to give positive evidence on the point at issue without knowing the exact state and condition of things that happened, and on Mr. Wade's own admission there was no one who could tell what the actual condition of the patient was except, perhaps, the plaintiff himself, and his knowledge was admittedly imperfect. The jury could not return a verdict for the plaintiff unless they could point to some particular act of neglect on the part of the defendant, or some malpractice; but there was no such evidence, and the plaintiff having brought no positive evidence on the point must fail. The plaintiff was accordingly nonsuited. We heartily congratulate Dr. Bowman upon the result of this action, and at the same time express our sympathy with him in being called upon to defend such an action in a law court.

Digitized by Google

HOSPITAL INTELLIGENCE.

The Alfred Hospital, Melbourne. — The Alfred Hospital is said to be in serious financial straits. With a capacity of 168 beds and cots it has now 171 patients, some being accommodated on lounges and on the floor. It is reported that the last month's accounts had to be held over because the committee could not get a sufficient overdraft from the bank.

Brisbane Hospital.—As a result of the recent alteration in the rules of the Brisbane General Hospital, Mrs. Corrie (Mayoress) and Mrs. James Clark have been appointed as the first lady representatives of the Government, to act in conjunction with the male representatives on the committee of management.

Gundagai Hospital (N.S.W.).—In connection with the Gundagai Hospital dispute, Mr. W. L. Vernon, Government Architect, has reported to the Premier on the proposed sites. He advises that the interests of the town and district will be met by the adoption of the Glebe site, and further recommends that the Government subsidy should be paid in future conditionally upon the hospital authorities providing proper dispensary accommodation for outdoor patients in the town for so long as this special accommodation may be deemed necessary. Dr. F. G. Griffiths considers the committee are quite justified in selecting the more distant Glebe site on account of its superiority as a site, the financial advantages to be gained, and the approval of the Board of Health.

Camden Cottage Hospital (N.S.W.).—As a result of the fifth annual ball in aid of the Camden Cottage Hospital, held last month, it is expected that about £120 will be realised for the hospital.

Royal Prince Alfred Hospital, Sydney.—At the last monthly meeting of the Board of Directors of the Royal Prince Alfred Hospital held, it was intimated that his Majesty the King had been graciously pleased to confer the title "Royal" upon the hospital, which would in future be styled "The Royal Prince Alfred Hospital." A letter was received from the Medical Board, representing the honorary medical staff, making certain recommendations with respect to the constitution of the staff, to the effect that all clinical assistants should for the future be appointed for one year only, and that additional assistant surgeons should be appointed in the gynæcological, ophthalmic, and eye, ear and throat departments. Discussion ensued, in which it was generally agreed that the system of clinical assistants had not proved the success which was anticipated. Eventually it was resolved that at the termination of the present period of appointments, the position of clinical assistant be abolished, with a view to the appointment of additional honorary assistants in those departments which need them. It was agreed that one additional honorary assistant surgeon be appointed in the following two departments, viz., the gynæcological, and ear, throat and nose departments.

Sydney Hospital.—At the monthly meeting of the board of directors of the Sydney Hospital, Mr. W. H. Flavelle forwarded further bequests amounting to £1100 from the estate of the late Adam Guy Flavelle. Dr. John Harris was appointed temporarily to assist in the out-patients' department whilst Dr. Gill is acting for Dr. Storie Dixson, absent on leave. The tender of Mr. William Noller was accepted, on the recommendation of Messrs. Robertson and Marks, hon. architects, for work in connection with an additional bathroom off the light casualty department and observation ward. A resolution of sympathy with the president (Sir A. Renwick) in his recent domestic bereavement was passed.

St. George's Cottage Hospital, Sydney.—The official opening of the additions to the St. George's Cottage Hospital at Kogarah took place on October 3rd. The additions consist of a ward containing eight beds, and also an operating theatre. The ceremony was performed by Mrs. Lamrock, wife of the chief medical officer of the institution, and Mr. J. H. Carruthers presided, and said when Sir John See laid the foundation stone of the additions, the opening of which they were celebrating, there was a debt of £600 or £700. Now it was about £114. There were at present 306 subscribers to the hospital, and he hoped that before the expiration of the year this number would be increased to 500. During the year £1208 had been subscribed. Mr. Carruthers, on behalf of the committee, then handed Mrs. Lamrock a gold key, and she declared the new ward open.

Armidale and New England Hospital (N.S.W.).—On the 23rd ultimo a new wing was opened at the above hospital by his Excellency the State Governor, who was accompanied by Lady and Miss Rawson and staff. The new block contains a patients' dining-room, nurses' dining, sitting, bed and bath rooms, a spacious kitchen, scullery, larder, pantry and laundry. A sterilising and an operating room are situated in the east side of the block, both rooms being isolated from each other and from the rest of the buildings. The operating room is 16 feet long by 14 feet broad, the corners and all angles rounded, and its ceiling is dome-shaped. It is finished with Keen's cement from floor to ceiling, which presents a clean, hard and non-absorbent surface, admirably reflecting the light, which is admitted by windows on three sides and a large flat sheet of glass which completes the concave roof. Before next winter the room will be heated by hot water, and its utility to the patient and comfort to operator and assistants will shortly be considerably increased by making all doors and windows fly-proof. The furnishings have been bought through a fund raised to perpetuate the memory of the late Dr. L. G. Mallam, whose services to the hospital are also commemorated by a simple yet handsome tablet affixed to the outside wall of the new wing. The steriliser, tables, instrument case, irrigator, etc., were supplied by Messrs. Zoeller and Ross, and the hot and cold water washing basins, etc., with pedal attachments, by Messrs. Hannam. Accommodation is also found for a microscopic and X-ray room, which is suitably fitted and equipped. At the opening there were present, amongst others:—The staff, consisting of Drs. Wigan, Little, Samuelson and Harris; also Drs. Walley and H. L. Harris, of Tamworth; Morton, of Inverell; and Ayres, of Newcastle. Dr. Wigan, the *doyen* of the hospital, opened the proceedings with a graphic word-sketch of the hospital when he was first appointed, 27 years ago. His Excellency made a thoughtful and encouraging reply, with characteristic generosity emphasising his remarks by a handsome monetary donation. In the evening the surgical staff (Dr. Samuelson as hon. secretary) entertained his Excellency and Mr. Shaw, R.N., together with the visiting practitioners, at dinner. Dr. Wigan proposed the Governor's health, which brought from his Excellency a happy reply, eulogising the medical profession. Dr. Little proposed "The Visiting Practitioners," and acknowledged Sir Harry Rawson's tribute. Dr. Walley made a neat response. The whole company then met Lady and Miss Rawson, who were accompanied by Captain Wilson, and adjourned to the hospital ball, which passed off successfully and with a good financial result.

Digitized by Google

General Hospital, Launceston (Tas.).—From the annual report of the board of management of this hospital for the year 1902 we learn that Drs. Pardey, Parker and Clemons were elected members of the board *ex officio*, Dr. Clemons being appointed in Dr. Holmes' place when he retired from the board. Dr. Holmes, the retiring member of the hon. medical staff, was unanimously reappointed to the position. Towards the close of the year the Surgeon Superintendent, Dr. Ramsay, left on extended leave, after seven years of closest attention to all branches of the work of the institution; Dr. Heywood, who previously occupied the position of house surgeon, being appointed acting surgeon superintendent, and Dr. J. F. Barnard appointed to the position of house surgeon. In the Training School for Nurses the usual lectures have been delivered by the surgeon and lady superintendent and the house surgeon. Nine nurses passed final examinations, and gained the certificate of Launceston Hospital Training School. During the year the Gibson Convalescent Home, generously presented to the hospital by Mrs. William Gibson, has been furnished and opened, and has already proved a very valuable adjunct to the hospital. The hospital has the electric light only in three or four parts, and a complete installation would be highly desirable. Extensive repairs are needed in many parts of the hospital, to verandahs and floors in parts, and much could be re-painted with advantage. A small electric stove has been procured for the operating theatre for heating purposes, and a small electric hot-air apparatus. A large proportion of the drugs and dressings required for use in the hospital during the year was obtained direct from England. The arrangement proved satisfactory, both as to the quality of goods supplied and the saving effected by so doing. For the larger portion of the year the hospital has been very full; at times it has been necessary to refuse admission to patients owing to lack of accommodation. The accommodation at the isolation wards has been repeatedly taxed to the uttermost, owing to an epidemic of scarlet fever and diphtheria. The number of patients remaining in hospital on 1st January, 1902, was 82; admitted during the year, 1167; total treated, 1251; discharged—cured 607, relieved 294, unrelieved 60; died, 63; remaining 31st December, 80. The number of outpatients treated was 1463. The average cost of each occupied bed: Upon whole expenditure, exclusive of improvements and repairs to buildings, etc., £77 7s 2d; upon net expenditure, exclusive of improvements and repairs to buildings, etc., £60 3s 8d.

MEDICAL MATTERS IN PARLIAMENT.

New Zealand—Treatment of Lunatics.—During the recent discussion on the Estimates, the Minister in charge of asylums said he proposed to make a new departure by placing women doctors in charge of female wards in asylums. There were over 500 persons, old people and imbeciles, in the institutions who should not be there. Separate buildings should be provided for them. The future policy of the Department would be in the direction of erecting detached buildings in which classification could be carried out. One portion would be devoted exclusively to the reception of new patients. The term "lunatic asylums" would be abolished, and the institutions would be styled "hospitals for mental diseases." The Minister also declared his intention of having a careful inquiry made into the cause of the increase in lunacy which has taken place in the colony during recent years.

Water Supply and Sewerage.—In the New South Wales Legislative Assembly a bill has been introduced to give further powers to the Metropolitan Board of Water Supply and Sewerage. The bill gives authority to the board to administer any water and sewerage works outside the county of Cumberland, particularly the Richmond and Wollongong waterworks. During the plague outbreak it was found that the board had no power to enter on premises and insist on the drainage being put in a sanitary state. Power is taken under the bill to do that. The better control of the sanitation of the catchment area is provided for, and it is hoped that the absolute purity of the water will thus be assured. The free use of water by religious bodies, by hospitals, and charitable institutions has led to some extravagance, and it is now proposed to establish restrictions. In hospitals the free supply will be limited to 50 gallons per day per inmate, and in charitable institutions 30 gallons per day.

Remuneration of Nurses.—A memorandum by the President of the Board of Health in connection with the new regulations regarding the nursing staff at the Coast Hospital has been laid upon the table of the New South Wales Legislative Assembly. It is pointed out that the regulations will not affect the present staff, but only those who joined after the regulations were gazetted. Under these regulations the rates have been revised in accordance with the practice and pay prevailing at other metropolitan hospitals. Mr. A. Griffith asked the Premier if he was aware that the regulations recently framed by the Board of Health reduced the salary of the junior nurses from 10s a week to 4s. In reply, the Premier said he proposed to lay upon the table of the House the full particulars as to the reasons which had guided the Board of Health in framing the regulations.

The Dr. Ramsay Smith Enquiry.—In the Legislative Council, Adelaide, the Hon. E. Lucas asked the Attorney-General (Hon. J. H. Gordon) if the total cost of the Ramsay Smith enquiry was to be borne by the Government. The Minister, in reply, said that the usual rule where an officer was acquitted of the charges, was that the Government paid his reasonable costs, which were taxed by the Master of the Supreme Court. Of course the Government in the present case would not depart from the rule, which was always observed. The Hon. E. Lucas asked if the Government intended to introduce an Amending Anatomy Act this session. The Attorney-General answered in the affirmative, and added that the bill was now in course of preparation.

PRACTICES FOR SALE.

N.S.W.—Practice in nice town; a good district and climate, free from drought; £500. Price, £100.

N.S.W.—Unopposed Practice near Sydney; cash takings over £400. Practice, Furniture, Horse, etc., £100. A purchaser willing to take this can be financed.

N.S.W.—Unopposed Medical opening, with hospital and other appointments. Practice worth about £500.

N.S.W.—Practice in a fine district. Receipts over £1000. Hospital appointment attached. Price, £250.

QUEENSLAND.—Practice on Coast. Appointments. £375. Returns about £1000.

MR. F. W. LOXTON,
16 O'Connell-street, Sydney.—[ADVT.]

WANTED, Position as Dentist's Secretary, or as Housekeeper to a Doctor, by a highly qualified lady. Apply "Secretary," Box 525, G.P.O., Sydney.

Digitized by Google

PERSONAL ITEMS.

We are glad to note that Dr. P. J. Collins, of Woollahra, Sydney, has recovered from a severe illness and has resumed practice.

Dr. Eleanor Bourne has resigned her appointment as resident medical officer at the Women's Hospital, Sydney, having been appointed to a similar position at the Brisbane Hospital.

On September 2, Dr. P. Sydney Jones, of the Glebe, Sydney, third son of Dr. P. Sydney Jones, of Llandilo, Strathfield, was married to Miss Constance Myles, eldest daughter of Mr. and Mrs. C. H. Myles, of Dingadee, Burwood.

Dr. Archibald Irwin Blue, of Warialda, N.S.W., was married to Miss Maude Howard Hutchins, younger daughter of Mr. and Mrs. Richard Hutchins, of Valetta, Randwick, on September 2.

Dr. Ramsay Smith has been restored to the offices of City Coroner and chairman of the Central Board of Health, Adelaide.

Dr. Thomas Pickburn, who died at College-street, Sydney, on August 18th last, has left his real and personal estate, which for purposes of stamp duty was valued at under £10,183 10s, to the members of his family.

Dr. Ham, Commissioner of Public Health, Queensland, acting on medical advice, has been taking a month's holiday. Dr. J. Thomson has been appointed Deputy Commissioner.

At the last monthly meeting of the Board of Directors of the Royal Prince Alfred Hospital, Sydney, a letter was received from the matron, Miss S. B. McGahey, resigning her position as from December 31, next, on account of ill-health. The intimation of the intention of Miss McGahey to resign was received with regret. The following resolution was unanimously agreed to:—"That the resignation of Miss McGahey of the position of matron, after a period of service of 12 years, be accepted with the greatest regret; and that it be placed on record that during her connection with the hospital she has shown the marked zeal and ability which have tended towards the raising of the tone and efficiency of the nursing staff, and towards the improvement in the administration of the institution generally.

Professor Anderson Stuart, M.D., LL.D., chairman of the Royal Prince Alfred Hospital, has been granted leave of absence from his duties for a period of six months, from the end of the year, to permit him to visit Europe and America.

At a meeting of the Glebe branch of the St. John Ambulance Association, Dr. Sydney Jones, jun., and Dr. E. P. Sandes were the recipients of presentations from the ladies' and gentlemen's classes.

Bossi's 4-bladed Uterine Dilators for Eclampsia, price £3 15s, to be had from L. Bruck, Direct Importer, 15 Castlereagh-street, Sydney. These Bossi's Dilators are guaranteed to be of the identical make and construction as those sold in London at £4 15s. Bossi's Dilators are made by one firm only, and although there is not the slightest difference in their quality, they are sold at prices which vary considerably according to the profits desired by the vendors, and whether obtained direct from the original makers or through middlemen.—[Advt.]

Dr. W. Spalding Laurie has resigned the appointment of Physician to the Perth Public Hospital, W.A.

Dr. F. G. Connor, late of Lismore, has removed to Willoughby, North Sydney, and retired from practice.

Dr. Studdy, who for many years practised at Riverstone, but who now resides at North Sydney, has been presented with an illuminated address from his numerous friends in Riverstone.

The value of the estate of the late Dr. Frederick Norton Manning, late superintendent of the Asylums for the Insane, who died on June 18th, 1903, was sworn at under £13,812 for probate purposes.

At a well-attended meeting in the board room of the Parramatta District Hospital, N.S.W., on September 16th last, presided over by Archdeacon Günther, it was resolved to present an address to Dr. Reginald Bowman, who was connected with a recent lawsuit, as a token of appreciation and confidence in him as a medical man, surgeon and good citizen.

Dr. C. M. Deane has removed from Strahan to Mathinna, Tasmania.

Dr. Harvey has returned to Hobart from a trip to England.

Dr. Penny, late of Scottsdale, has removed to St. Helen's, Tasmania.

Mr. Sydney H. Allen, of Melbourne, who was a student of Melbourne and Edinburgh Universities, has obtained his F.R.C.S.E. He is assistant medical officer of the Wandsworth and Clapham (London) Infirmary.

Dr. C. Newland has commenced practice at Morphettvale, S.A.

Dr. D. Harbison has entered into partnership with Dr. A. E. J. Russell, of Unley, S.A.

At a meeting of the Council of the Royal Colonial Institute last month, Dr. Colquhoun, of Dunedin, was duly elected a fellow of the Institute. The meeting was presided over by Sir Nathaniel Bowden-Smith.

Dr. D. J. T. Burt, M.B. (Edin.), has returned to Dunedin from Sydney, after a visit to England and the Continent extending over a year.

Dr. Noonan, of Blenheim (N.Z.), has sold his practice to Dr. Foster, a recent arrival from the Old Country.

Dr. F. P. Butler, who lately came from England, has commenced practice in Cambridge (N.Z.).

Dr. Wilson has resigned his appointment at the Aratapu Hospital, N.Z.

Dr. Fyffe, of Fitzroy, Melbourne, has returned after a six months' trip to Europe.

Dr. Rogers, of Adelaide, has been appointed member of the Board of Governors of the Public Library, Museum and Art Gallery.

MEDICAL NOTES.

Donations and Charitable Bequests.—Miss Nellie Stewart has decided to endow a cot at the Children's Hospital, Melbourne, in perpetuity, instead of for one year, as previously arranged. Mr. James Douglas, of Sale, Victoria, grazier, has left property, valued at £8658, to be divided into eight equal parts. Two of them are to go to the Gippsland Hospital, Sale,

Digitized by Google

one to the Ladies' Benevolent Society, Sale, and the remaining five to be divided equally between the Melbourne Hospital, the Alfred Hospital, the Melbourne Benevolent Asylum, and the Little Sisters of the Poor, Northcote. Mr. John Byrne, of Heyfield, has made the following bequests:—£500 each to the Sale and Bairnsdale Hospitals, and the Victorian Institute for the Blind; £250 to the Austin Hospital, and, subject to a legacy of £100, the remainder goes to the Melbourne Hospital. An anonymous donation of £1000 has been made to the funds of the Melbourne Hospital. The secretary has also received a cheque for £188 from the trustees of the estate of the late T. B. Payne.

The Sydney District Nursing Association.—At the annual meeting of the District Nursing Association the annual report submitted by the hon. sacretary showed that two trained nurses had been continuously engaged in attending the sick poor in various districts. A visiting committee of ladies to supervise the nurses' work was suggested. The North Shore committee had undertaken to provide a special fund for the purchase of drugs, bandages, food, etc. Drawing-room meetings were held during the year, and a number of entertainments had been organised and successfully carried out. The committee acknowledged with gratitude a number of handsome donations, and gave special thanks to Sir Harry and Lady Rawson for a most successful fête in the grounds of "Cranbrook," which had realised over £670. This splendid result meant that four or five nurses would now be employed. Sir James Graham said that no special pleading need be made for the association. He paid a high tribute to the efforts of the late Sir Alfred Roberts and Dr. Norton Manning in connection with district nursing. The nurses of the association attended to sub-acute or chronic cases that were turned out of the hospitals or were not admitted to them. The hon. treasurer's report showed a credit balance of £87 9s.

Sydney University Medical Graduates Dinner.—The first annual dinner of Medical Graduates of the Sydney University was held at the A B C Café on September 19th. Dr. W. G. Armstrong, the City Health Officer, and the first graduate to receive the degrees of M.B., Ch.M., presided over a good attendance of the graduates, as well as professors and lecturers, who were present by invitation. The toasts were: "The King," given by the chairman; "The University," given by the chairman, and responded to by Dr. P. Sydney Jones; "The Medical School," given by Dr. Chisholm Ross, and responded to by Professor Anderson Stuart; "The Teaching Staff," given by Dr. Frank Tidswell, Microbiologist to the Board of Health, and responded to by Sir James Graham; and "The Chairman," given by Dr. Hankins. The function was admitted on all sides to be a pronounced success, and it is intended that some such function should become an annual event.

Memorial to the late Dr. Megginson.—A fund is being raised for the purpose of erecting a memorial stone over the grave of the late Dr. A. M. Megginson, of Sydney. The Pioneer Lodge, United Ancient Order of Druids, of which the late doctor was medical officer for many years, have contributed £5 3s 6d. Another £20 will be required, and any contributions towards this object will be received by the hon. treasurer, Mr. S. Sonenfeld, 17 Holt-street, Surry Hills, Sydney.

Australasian Trained Nurses' Association.—A special general meeting of the members of the Australasian Trained Nurses' Association was held on 12th October, 1903, at the rooms of the Royal Society, Sydney. The following recommendations of the council regarding the status of midwifery nurses were adopted: 1. That the midwifery branch shall have three direct representatives on the council of the association. 2. That rule 3 in the midwifery section be altered so that midwifery nurses may have the right to attend all lectures. 3. That no general nurse, unless trained in midwifery, shall undertake the care of obstetric cases, and no midwifery nurse shall undertake the care of medical or surgical cases unless registered as a general nurse; a nurse who has been proved, to the satisfaction of the council, to have violated this rule, shall be liable to have her name removed from the register. 4. (*a*) That a committee be formed by the midwifery nurses for the purpose of formulating requests to the association through their direct representatives; (*b*) that the said committee consist of eight members, of whom two may be honorary members, but all shall be members of the association.

Pharmaceutical Products. — The Société Chimique des Usines du Rhone (Agents, H. J. Langdon and Co., Melbourne) have a special notification of some of their products on page 48 of our advertising columns, including Kélène, Organo-serums for tuberculosis, and Snake Serum. Their autoclave for the Trillat process of disinfection by means of formaldehyde vapour may be seen at the office of this paper, and literature obtained as to the method of using it.

Uritone-Hexamethylene Tetramine is a urinary antiseptic, derived from formaldehyde and ammonia, which has been introduced by Parke, Davis and Co. It occurs in white transparent crystals, rhomboid or prismatic in shape. Its action appears to be directed chiefly on the kidneys and genito-urinary tract. It is given in doses of 5 to 15 grains, either in capsules or dissolved in water. A liberal supply of water must be taken with it. Its chief indications are cystitis, pyelitis, purulent inflammation of the prostate, pyuria, etc.

A Pulsometer.—A Viennese physician named Dr. Gaertner has patented an instrument which tells exactly the rate of the pulse while a patient is under the influence of anæsthetics. The instrument is fastened on the forearm of the patient, and shows on a graduated dial the varying strength or weakness of the action of the heart as affected by the narcotic.

MEDICAL APPOINTMENTS.

NEW SOUTH WALES.

Baldwin, Mary, M.B., B.S. (Melb.), to be Resident Medical Officer, the Women's Hospital, Sydney.
Caspersonn, Edward, M.D., M.Ch. (Philad.), to be Government Medical Officer and Vaccinator at Wyalong, *vice* Dr. William Sproule.
Handcock, Charles Launcelot, M.B. (Syd.), to be a member of the Licensing Court for the Licensing District of Goulburn.
Harris, John, M.D., to act as temporary Assistant Physician, Sydney Hospital.
Prior, Guy Percival Underdown, L.R.C.P., M.R.C.S. (Eng.), to be Junior Medical Officer, Department of Lunacy.
Pope, Roland, M.D., F.R.C.S., to be Hon. Ophthalmic Surgeon to the Sydney Hospital, *vice* Dr. Evans, resigned.

SOUTH AUSTRALIA.

Watson, Archibald, M.D., F.R.C.S., Professor of Anatomy, to be Honorary Consulting Surgeon, Adelaide Hospital.

QUEENSLAND.

Thomson, John, M.B., C.M. (Edin.), to be Deputy Commissioner of Public Health during the absence on leave of Dr. Ham.

TASMANIA.

Boughton, William Blockley, L.R.C.S., L.S.A., to be Port Health Officer and Medical Officer to Police, Gaols and Paupers, Strahan, *vice* Charles Maslen Deane, M.D., resigned.
Morgan, Edward H., M.R.C.S., to be Public Vaccinator for the Districts of Hamilton and Bothwell.
Thomas, Bernard, M.B., to be Public Vaccinator for the Registration Districts of Gordon and Kingborough, Tasmania.

Digitized by Google

Willmot, Robert, F.R.C.S., to be Acting Health Officer to the Corporation of Hobart.

WEST AUSTRALIA.

Annand, George, M.D. (Melb.), to be Physician to Out-patients to the Perth Public Hospital, *vice* R. P. Brown, M.R.C.S., L.R.C.P., resigned.
Camm, T. C. L., M.B., B.S. (Melb.), to be Junior Resident Medical Officer to the Perth Public Hospital.
Ether, Ambrose, M.B., B.S. (Adel.), to be Junior Resident Medical Officer to the Perth Public Hospital.
Farmer, William, to be District Medical Officer at Busselton, Quarantine Officer for the Port of Busselton, and Public Vaccinator for the Urban and Suburban Districts of Busselton, and Rural District of Sussex.
Grey, Wm. C., M.B., Ch.M. (Syd.), to be Medical Officer to the Bulong Hospital.
Palmer, J. R., to be Officer of Health, Wagin, *vice* Dr. Harvey, resigned.

NEW ZEALAND.

The following gentlemen have been appointed Public Vaccinators for the districts set opposite their names, viz.:—

Dukes, Edmund Sprague, M.B., M.R.C.S., Paparoa.
Edmunds, Henry Augustus, L.R.C.P., M.R.C.S., Kawakawa.
Green, Joseph, M.R.C.S. (Eng.), L.R.C.P. (Lond.), Winton.
Gordon, Colin Huntly, M.B., B.S., Riverton.
Huntly, Edith A., L.R.C.P., L.R.C.S. (Edin.), M.D. (Brux.), Wellington, N.Z.
Porritt, Ernest Edward, M.B., M.S. (Edin.), F.R.C.S. (Edin.), Wanganui, N.Z.
Stockwell, George Thomas, M.R.C.S., Orepuhi.
Turnbull, Robert Brown, M.B., B.S., 1899 (Edin.), D.P.H., R.C.P.S. (Edin.), Mangaweka.

PROCEEDINGS OF AUSTRALASIAN MEDICAL BOARDS.

TASMANIA.

Gollan, Lachlan, M.R.C.S. (Eng.), 1900, L.R.C.P. (Lond.), 1900.
Grindrod, William Campbell, M.B. (Melb.), 1903, Ch.B. (Melb.), 1903.
Morgan, Edward Hume, M.R.C.S. (Eng.), 1885.

QUEENSLAND.

Osborne, John King, M.B., Ch.M. (Syd.), 1903.
Robertson, Arthur William, L.S.A. (Lond.), 1897.

SOUTH AUSTRALIA.

Drew, Thomas Mitchell, M.B., B.S. (Melb.), 1901.
MacBirnie, Stuart, M.B., Ch.M. (Glas.), 1900.
Newland, Clive, M.B., B.S. (Adel.), 1902, L.R.C.P. (Lond.), M.R.C.S. (Eng.), 1903.

BIRTHS, MARRIAGES AND DEATHS.

BIRTHS.

BENNET.—On September 23rd, 1903, at 26 College-street, Hyde Park, Sydney, the wife of Frank A. Bennet, M.D.—a son.
BOWKER.—On September 26th, 1903, at Dungog, N.S.W., the wife of C. Stanser Bowker, M.R.C.S. (Eng.), L.R.C.P. (Lon.), —a daughter.
ELLIOTT-SMITH.—On September 24th, 1903, at Cairo, Egypt, the wife of Grafton Elliott-Smith, M.D.—a son
KNIGHT.—On September 10th, 1903, at Port Melbourne, Vic., the wife of Glen A. Knight, M.B., B.S.—a son.
TAYLOR.—On September 26th, at 1 Richmond-terrace, Domain, Sydney, the wife of G. H. Taylor—a son.
HAGENAUER.—On October 2nd, at "Wymera," Foster-street, Sale, Victoria, the wife of G. A. Hagenauer, M.B.—a daughter.
HENDERSON.—On September 28th, at 8 Auburn-road, Auburn, Victoria, the wife of Dr. J. Hunter Henderson—a son.
SMITH.—On September 30th, at Clare, S.A., the wife of Otto Wien Smith, M.D.—a daughter.

MARRIAGES.

NEWLAND—HAMILTON.—On September 26th, at St. Peter's College, Adelaide, Clive Newland, M.B., M.R.C.S., of Morphettvale, S.A., fourth son of Simpson Newland, of Burnside, to Marjorie Ringwood, daughter of Dr. A. A. Hamilton, of Adelaide.

BARLING—MORGAN.—On September 22nd, Eric Vernon, M.B., Ch.M. (Syd.), son of Joseph Barling, Esq., of Dulwich-hill, to Caroline Frances, daughter of Cosby W. Morgan, Esq., of Pambula, N.S.W.
GREEN—WATSON.—On August 27th, 1903, at Newtown, Sydney, James Elliott, eldest son of William James Green, of Newtown, to Lillie, daughter of Dr. Charles Russell Watson, of Newtown.
ANDERSON—AMOS.—On October 6th, 1903, Hugh Mille Anderson, B.A., M.B., Ch.M., of Cootamundra, son of Robert Anderson, Esq., J.P., Marrickville, to Janet Helen, daughter of Robert Amos, Esq., of Darlinghurst, Sydney.
THOMAS—JONES.—On August 27th, at Ashfield, Sydney, George Bowen Thomas, M.B., Ch.M., son of the late Alfred Thomas, C.E., of Toowoomba, Queensland, to Ethel Amelia, daughter of Dr. and Mrs. R. Theo. Jones, Ashfield.

DEATHS.

MORRIS.—On October 2nd, at his residence, "Syene," Vernon-street, Strathfield, Sydney, Dr. William Morris, aged 71 years.
RENWICK.—On September 30th, at Summer Hill, Sydney, George Gordon Condie, fourth son of Sir Arthur Renwick, M.D., aged 22 years.

BOOKS RECEIVED.

Tuberculosis. Recast from Lectures delivered at Rush Medical College, in affiliation with the University of Chicago. By Norman Bridge, M.D., Professor of Medicine in Rush Medical College. Philadelphia: W. B. Saunders & Co., 1903. Melbourne: Jas. Little. Price, 2s 6d.

Röntgen Rays in Therapeutics and Diagnosis. By W. Allen Pusey, M.D., Professor of Dermatology in the University of Illinois; and Eugene W. Caldwell, B.S., Director of the Edwd. N. Gibb X-Ray Laboratory, University and Bellevue Medical College, N. York. Philadelphia: W. B. Saunders and Co., 1903. Melbourne: Jas. Little. Price, 25s.

A Text-Book of Legal Medicine and Toxicology. Edited by Fredk. Peterson, M.D., and W. S. Haines, M.D. Vol. i. and ii. Philadelphia: W. B. Saunders & Co. 1903. Melbourne: Jas. Little. Price, 21s.

Cancer and Precancerous Changes: Their Origin and Treatment. 8vo. By G. H. Fink, M.R.C.S., L.S.A. (Lond.) London: H. K. Lewis, 136 Gower-street.

A Hand-Book of the Diseases of the Eye and their Treatment. 8vo. By Henry R. Swanzy, M.B., F.R.C.S.I. Eighth edition. London: H. K. Lewis, 136 Gower-street. Price, 12s 6d.

LETTERS AND OTHER COMMUNICATIONS HAVE BEEN RECEIVED FROM:—

Dr. J. L. Beeston, Newcastle; Messrs. Parke, Davis & Co., Sydney; Mr. Thos. Pratt, Sydney; Dr. J. M. Mason, Department of Public Health, N. Zealand; Dr. F. G. Connor, Willoughby; Dr. J. E. F. Stewart, Midland Junction, W.A.; Dr. C. L. Handcock, Goulburn; Dr. W. F. Litchfield, Sydney; Dr. F. E. Hare, Brisbane; Dr. F. J. T. Sawkins, Sydney; Editor *Chemist and Druggist of Australasia*, Melbourne; Mr. Chidley, Melbourne; Dr. G. S. Samuelson, Armidale; Dr. W. L. Cleland, Parkside, S.A.; Dr. H. Simpson Newland, Adelaide; Dr. R. H. Marten, Adelaide; Dr. T. B. Clune, Sydney; Dr. A. L. Kerr, Granville; Dr. L. Henry, Melbourne; Dr. A. B. Brockway, Brisbane; Dr. A. E. Randell, Perth; Dr. C. G. Hawkes, Brisbane; Mr. T. Shaw Fitchett, Editor *New Idea*, Melbourne; Dr. W. B Nisbet, Victoria; Dr. J. Brooke-Moore, Bathurst.

HUDSON'S "EUMENTHOL" JUJUBES (Registered) are a Gum Jujube containing the active constituents of well-known Antiseptics, Eucalyptol, Thymus Vulg., Pinus Sylvestris, Mentha Arv., with Benzo-Borate of Sodium, etc., and exhibit the antiseptic properties in a fragrant and efficient form. Sold by all chemists; tins, 1s 6d. Are Antiseptic, Prophylactic, reduce Sensibilty of Mucous Membrane. Mr. W. A. Dixon, F.I.C., F.C.S., Public Analyst of Sydney, after making exhaustive tests, says:—"There is no doubt but that 'Eumenthol' Jujubes have a wonderful effect in the destruction of bacteria and preventing their growth. . . . I have made a comparative test of 'Eumenthol' Essence and Creosote, and find that there is little difference in their bactericidal action."—[ADVT.]

Digitized by Google

AUSTRALASIAN MEDICAL GAZETTE.

THE CLINICAL SIGNS AND PATHOLOGICAL CHANGES IN A CASE OF ADDISON'S DISEASE.

R. Scot Skirving, M.B. (Edin.), Lecturer in Clinical Medicine, Sydney University, and D. A. Welsh, M.A., M.D. (Edin.), Professor of Pathology in the University of Sydney.

ADDISON'S disease is sufficiently rare in New South Wales to make it desirable to record an example, especially if, as in this case, it is completed by a post-mortem examination. In the Prince Alfred Hospital we have had in 20 years only three cases of this malady, in one of which an autopsy revealed malignant disease. In private practice during about the same period I cannot call to mind seeing more than six or seven examples of this uncommon lesion.

The ward notes of this case are as follow:—W.T.W., aged 39, a clerk, was admitted on June 11th, 1903. He had been ill eight months, complaining of weakness, shortness of breath, and giddiness. Six months ago he stated that he had an attack of jaundice, unaccompanied by either pain, fever, or marked alteration in his excreta. He thinks the colour then present in the skin has persisted. A second and deeper appearance of jaundice came on two months later, and it is especially since then that strangers have noticed his dusky complexion. I may here observe that the occurrence of jaundice in cases of adrenal disease has been recorded in other instances. His weakness and giddiness have steadily increased, vomiting has only recently come on (it has been very persistent, but unaccompanied by any blood, nor does it stand in any definite relationship to meals). He has no abdominal pain or diarrhœa, but is very flatulent. His personal and family history is somewhat suggestive, for he stated that he suffered from "hip joint disease" when a child, after a slight injury, and a brother had some "prolonged lung disease." There is nothing else of importance to record in this connection.

As the patient lay in bed, flat out, listless, too weak to move, taking the most tepid interest in his surroundings, he exemplified in a striking manner the characteristic languor of his malady. His temperature was 97°, pulse 80 per minute, with quiet, hollow breathing. He had no pyrexia throughout, but occasionally his pulse rose over 100 per minute; always small and compressible.

His complexion showed a dirty sallow tint, with some deeper duskiness round the eyes. The penis and scrotum were markedly pigmented, but the axillæ, conjunctivæ, and all points of external pressure showed no pigmentation whatever. Indeed, although the face looked dusky enough, true pigmentation was less in evidence than in any of the former cases of undoubted Addison's disease observed clinically by me. On the buccal mucosa, however, were a few small discrete black spots corresponding to the sites of carious teeth.

His appetite was poor; tongue flabby but clean. I have already referred to his urgent vomiting.

In the abdomen there existed some ill-defined epigastric tenderness. No jaundice or ascites was present. Indeed, the physical examination of the abdomen revealed no further sign of disease.

He had neither sign nor symptom suggestive of lung disease.

In his vascular system palpitation and breathlessness were his chief complaints. His heart was apparently not dilated. The apex beat was scarcely palpable, and no murmurs were heard on auscultation; in fact, the sounds themselves were hardly audible, especially at the apex.

In his nervous system he complained of a dull persistent general headache. He slept badly, but his intellect was clear. His special senses were unimpaired. There was no affection of any cranial nerve. He had no convulsions, an occurrence mentioned by some authorities as common. (It was present in a case I treated in 1894).

His chief symptom was his almost total inability to perform any muscular exertion. An increasing "invincible languor" was apparent in every wearied sentence uttered or tired movement performed. Neither his superficial nor deep reflexes were at this time altered. There was no loss of sensation of any form.

His urine was normal. The notes say that no excess of urinary pigment existed, but no special search for uro-hæmato-porphyrin was made.

During his short stay in hospital such pigmentation as existed visibly deepened. Vomiting accentuated his profound asthenia, and the mildest aperients acted too briskly. This small fact is worth mentioning in view of the frequent prominence of the lymphoid follicles of the intestinal tract recorded by Greenhow. Shortly before death some small intensely dark spots appeared on his forehead, a point which has not escaped the same acute observer. Only

Digitized by Google

one blood examination was made during life. Red cells were apparently in excess, viz., 5,750,000, the white 12,550, and no abnormal forms were present.

The patient's progress was steadily downhill. Shortly before he died he complained of a good deal of pain, apparently associated with extreme rigidity of the joints of the lower extremities. At this time some increase of the deep reflexes was noted. His faculties remained clear to the end.

The treatment was directed towards the relief of the obtrusive symptoms—the vomiting and asthenia. Of course we gave adrenalin, but without obvious benefit. (See note.)

For this record I am largely indebted to Dr. Smith, one of our house physicians.

Remarks. — This case presents the three cardinal signs described by Addison—pigmentation, vomiting, and asthenia; moreover the small intensely dark spots recorded by Greenhow were also noted. With regard to pigmentation in this patient, it certainly was not so salient a feature as it is usually, besides which the axillæ and points of pressure were remarkably free of its presence. My limited experience leads me to think that pigmentation bulks too largely in most practitioners' minds in the diagnosis of Addison's disease. In rapid cases certainly, and probably in the early stages generally, it may be absent or very little in evidence. Not so the asthenia. As I pointed out when demonstrating this case to my class, some mistakes are made by rashly concluding that altered colour of the skin is well-nigh pathognomic of an adrenal lesion.

When one remembers the dusky hue, or pigmentation, met with in so many diverse conditions—such as Hodgkins' disease, malaria, diabète bronzé, phthisis, exophthalmic goitre, vagabondismus (indeed I forget as many as I mention)—it is evident that care must be exercised in recognising if there be really pigmentation present, and if so in excluding the many conditions other than Addison's disease in which it is met. It is, I think, no far-fetched linkage to connect Graves' and Addison's diseases in this fashion—that the most important signs in these maladies respectively are not the most superficially obtrusive. In the former the heart-hurry is the essential factor which must always be present to justify the complete diagnosis, whatever be the appearance of the eyes or the thyroid gland. So, also, in Addison's disease an individual case may, perhaps, have practically almost no pigmentation, or, conversely, that feature may be much in evidence; yet he would be a rash man who diagnosed adrenal disease unless the "invincible languor" the placid progressive asthenia were also present. I think, however, that pigment spots on mucous membranes have a high diagnostic value. In contrasting these two diseases just mentioned, it is perhaps also of interest to quote the remark of Rolleston calling attention to the comparative liability of the suprarenal bodies to tubercular disease, and the marked immunity of the thyroid gland to the same infection. It is further noteworthy that the physiological action of the extracts of these bodies are opposed.

Professor Welsh will tell you of the presence of an interstitial pancreatic hæmorrhage in this case—a fact hitherto unrecorded. It is possible, I think, that the jaundice met with in some cases of Addison's disease owes its origin to such pancreatic bleedings.

Those who are interested in such things will find that a large amount of recent work has been done concerning the action of the suprarenal bodies and their pathology. Though Addison did not know that the internal secretion of the adrenals which is essential in the body in preventing the signs of the malady he discovered apparently comes only from the medulla, nevertheless his first broad view was probably correct, "that any lesion which sufficiently interfered with their function would produce the signs of the disease," for, after all, the balance of evidence which we at present possess points to the mischief being due to an adequate supply of suprarenal secretion; but whether, as Rolleston sums up, "this deficiency leads to a toxic condition of the blood, or to a general atony and apathy, is a question which must remain open" for the present.

NOTE ON THE DOSES OF ADRENALIN GIVEN IN THIS CASE.—Parke, Davis' liq. adrenalin chlor. (1 in 1000) was used. The treatment extended over ten days. It was administered at first by mouth, in 7 to 10 mms., thrice daily, later every six hours. As vomiting became urgent, it was used hypodermically in doses ranging from 7 to 15 drops. The solution was made fresh daily with normal salt solution. In all 310 drops were given by the mouth and 60 hypodermically.

PATHOLOGICAL NOTES BY PROFESSOR WELSH.

The examination of the body was undertaken in the adverse circumstances that too commonly beset the pathologist, being made hurriedly and at an inconvenient time, and being limited to the abdomen. Nevertheless, we were enabled not only to confirm the clinical diagnosis, but to elicit certain facts of some interest and novelty.

Pigmentation.—I was particularly struck in viewing the cadaver by the fact, already insisted on by my colleague, that there was little or none of the cutaneous bronzing characteristic of typical cases. The colouration of the face, forearms, and hands was consistent in appearance and in distribution with a moderate degree

Digitized by Google

of sunburn. The areolæ of the nipples and the genitalia had a slightly darker tint than the adjacent skin. The axillæ were not perceptibly darker. On the whole, therefore, there was less pigmentation of the skin than in many healthy persons. Small pigmented patches were present in the buccal mucous membrane, but were difficult to find after death. One such patch was examined under the microscope, and granules of brownish yellow pigment were found to be scantily distributed both in the superficial corium and in the deeper epidermal cells.

Hilton Fagge (quoted by Rolleston) suggests that pigmentation might be absent in a patient kept in the dark, and Rolleston adds that the onset of pigmentation may be determined by the light to which the patient is exposed However that may be, it is interesting to note that exposure to the strong sunlight of Australia failed to accentuate the bronzing in this prolonged case.

Osler, speaking from personal observation of 12 cases, says that where the pigmentation is slight or absent the illness runs a more rapid course. In this respect also our case is exceptional, since we have evidence of a protracted illness and of an exceedingly chronic lesion associated with a very minor degree of pigmentation. The results of experiment, however, appear to indicate that time is an important factor.

Adrenals.—Both adrenal glands were embedded in densely indurated fibrous tissue, which extended around and between them, and in consequence of which the precise outlines were hard to define; but they still retained something of their usual conformation — the right being the broader and shorter, and the left the longer and narrower. There was little alteration in size; if anything, both were rather more bulky than the corresponding glands in health. The right adrenal was adherent by its upper edge to the under surface of the liver, and in the adhesions a small collection of softened caseous matter was found. The adrenal was firmer and paler than in health, but the most noticeable feature was the entire absence of the normal colour zones on section. Indeed, not only was there no anatomical distinction between cortex and medulla, but the cortex passed with little differentiation of structure into the surrounding matted tissues. Part of the centre was occupied by a softened pultaceous mass measuring ½ in. by ½ in. on section; the rest of the gland was studded with soft yellowish or whitish areas of caseation from ⅛ in. to ¼ in. in diameter. These caseous foci were invested by greyish translucent bands of fibro-cellular overgrowth, which, though more abundantly present in the cortical portion, freely intersected the medulla also. The capsule was thickened and adherent to the external fibrous induration.

The left adrenal showed for the most part similar changes, but the central portions were occupied by firmer caseous masses and by numerous cretaceous nodules. This obviously represented a much older tubercular lesion than that in the right gland. To the naked eye, therefore, both adrenals appeared to be completely destroyed by a chronic tubercular process of the fibro-caseous form.

Microscopic examination was confirmatory of these observations in so far as it showed that the process was tubercular, that it appeared to take origin in the central portion of each gland, and that it was more advanced in the left than in the right. In the right gland the greater part of the cortex and the whole of the medulla were quite unrecognisable in structure, being replaced by fibro-cellular strands and caseous foci. At places lymphocytes crowded the interstices of the fibro-cellular tissue, and giant cells, although not numerous, were well formed and definite. Great masses of caseation, starting in the centre, encroached upon the cortex, and considerable areas of the more superficial parts of the cortex could be recognised in various stages of necrosis—the cells blurred in outline, the protoplasm uniformly granular and caseating, the nuclear staining lost. Small islets of cortical tissue immediately beneath the thickened capsule appeared to have escaped necrosis. The cells were, however, enormously swollen, the cell body would scarcely take on any stain, and the nucleus appeared often to lie in a vacuolated mass of protoplasm. The condition of these surviving cells suggested that of a gland stimulated to unusual secretory activity. In sections of the left adrenal no such islets could be distinguished, the entire glandular structure being destroyed.

An accessory adrenal body was accidentally removed along with one of the semilunar ganglias, and was identified only on microscopic examination. It also was invested by indurated connective tissue, and lay in close proximity to the ganglion. Surrounded on all sides by a definite and thickened capsule, this accessory nodule, when fixed and stained on the slide, measured exactly a quarter of an inch in diameter. Its structure throughout corresponded with that of the islets of cortical tissue persisting in the right adrenal. The cells were greatly swollen, the protoplasm vacuolated and faintly staining, again suggesting the condition of a gland in enforced and excessive secretion.

Digitized by Google

There was a very slight degree of chronic interstitial overgrowth, but no evidence of tubercular invasion. On the other hand, there was no indication of any medullary tissue.

There could be no reasonable doubt regarding the tubercular nature of the process in the two adrenals. Despite the fact that bacilli were not demonstrable, and that the crucial test of inoculation in a guinea pig was not performed, the histological details of the lesion were in every respect comparable with those of chronic tuberculosis in other tissues. Several enlarged and firm caseous lymph glands were situate around the epigastric plexus, in the mesentery, and in the retroperitoneal tissues. Further, there was evidence of chronic hip-joint disease on the left side, and, though direct examination was prohibited, it is probable that the disease was tubercular. Moreover, though no definite chain of infected glands could be made out extending from the left hip to the adrenal, it is again probable that the tubercular infection attacked the left adrenal subsequently to the left hip, and the right adrenal subsequently to the left.

The Epigastric Plexus and Semilunar Ganglia.—One should be chary in expressing too definite an opinion regarding the state of the sympathetic ganglia and plexus. I do not mean regarding the existence of matting around them, for that is usually definite enough, and in one case was so extensive and excessive as to cause great difficulty in the dissection. In consequence of such matting it is more than probable that the sympathetic ganglia to some extent and the fibres to a greater extent are interfered with. But regarding the histological changes, unless one has had not only some experience in neurohistology, but a certain familiarity with the characters of the ganglia themselves, I think it is unwise to make unconditional statements. In order to satisfy myself on this point I examined a number of semilunar ganglia from cases other than Addison's disease, and without going too much into detail I may say (1) that precisely similar structural changes were found—*e.g.*, pigmentation and atrophy of the ganglion cells and sclerosis of the ganglia and fibres; (2) that the degree and extent of the changes were greater in older than in younger subjects (a fact previously noted by Hale White); and (3) that they were greater in the case of Addison's disease (*æt.* 39 years) than in the oldest of the other cases examined (*æt.* 66 years).

Pancreas.—The pancreas showed a condition which I have not seen recorded in other cases of Addison's disease—extensive recent hæmorrhage, and slight chronic cirrhosis. The hæmorrhage was of recent origin, most of the hæmocytes being intact, and was extensively present in the head and part of the body of the gland. The blood had infiltrated the interstitial tissue, spreading along between the lobules, and only to a very slight extent invaded margins of lobules. The cirrhosis was very chronic and comparatively slight in extent; only a few scattered lobules were involved, but in turn the cells were much atrophied. How far the epigastric tenderness and the recent urgent vomiting noted in the clinical record are referable to this pancreatic lesion, or how far the long standing implication of the solar plexus and the chronic progressive lesion of the adrenals are contributory, I am not prepared to say.

Summary.—Hence the autopsy revealed a destructive lesion implicating both adrenals, of a chronic and progressive type, and of tubercular origin; in fact, the common condition in this uncommon disease. With this was associated the very frequently concurrent lesion, some measure of sclerosis and atrophy of the epigastric plexus and ganglia. The presence of an accessory adrenal body and the occurrence of hæmorrhage into the pancreas are among the unusual features of the case.

In view of the work of Schäfer and Oliver on the internal secretion of the adrenals, special interest attaches to the fact that in the right adrenal small areas of glandular substance had escaped necrosis, and that these surviving cells were limited to the superficial cortex. It is also noteworthy that an accessory adrenal mass, a quarter of an inch in diameter, and free from tuberculosis, was, nevertheless, incapable of averting a fatal issue. One might have anticipated that it would have been capable of further growth, of developing a medulla and thus of replacing the damaged organs, all the more readily because these were destroyed by a slow and gradual process. Yet it must be remembered that the accessory body was encompassed by dense adhesions and a thickened capsule, which would militate against further growth, that its ultimate size was due in a great measure to the enlargement of individual cells, and that they represented entirely cortical elements, no trace of medulla being apparent.

In no other disease is it more difficult to make a general statement that shall not be open to exception; but the records of published cases certainly indicate that the only constant symptom in Addison's disease is the profound atony of skeletal and of cardio-vascular muscle, and that the only constant lesion is destruction of the adrenals or some equivalent condition. I am not alone in thinking that all properly

Digitized by Google

authenticated cases will be found to conform to this presentment of the relation between cause and effect; and, though there is a great unknown hiatus between the known cause and the known effect, the discovery that the medulla of the healthy adrenal contains a principle of extraordinary potency as a direct stimulant of muscular tissue generally and of cardio-vascular muscle in particular, while the adrenal of Addison's disease is inert (Schäfer and Oliver), is most suggestive in this relation.

I gladly take this opportunity of expressing my indebtedness to the Resident Pathologist, Dr. Moncrieff, particularly in the tedious work of dissecting out various sympathetic ganglia.

(Read before the New South Wales Branch of the British Medical Association.)

THE MECHANISM OF TRIGEMINAL NEURALGIA.

By C. S. Hawkes, M.R.C.S. (Eng.), Brisbane.

About two years ago I attempted to remove the Gasserian ganglion in a patient, the subject of trigeminal neuralgia, and though I was unable to complete the operation in the way I intended, the result to the patient was very satisfactory, no return of pain having ensued when last heard of two years after the operation. Still the factors that caused the successful result often puzzled me, and form the basis of these notes.

M.B., female, aged 64, had suffered severely for from five to six years with right-sided trigeminal neuralgia. All the teeth on that side had been removed, and on several occasions the peripheral branches of the nerves had been divided. None of these measures had given more than temporary relief; no drugs were of any use, and the pain was sufficiently intense to render existence unendurable. The phenomena of each paroxysm were as follow:—First, a distinct rise in the radial pulse tension occurred, and almost simultaneously the pain began, starting as a rule in the right temple as an intense boring burning pain and quickly radiating to eye, and brow, cheek, and lower jaw; the cheek, always glossy and red, got redder, and the muscles quivered as the pain got intense. The eye became suffused, and some increased salivation at times was noticed. I operated in May of 1901 by Cushing's method, a flap of scalp being turned down in the right temporal region, the zygoma cut through at either end and pushed down, a trephine hole made, and enlarged up and down with forceps. The middle meningeal was partly in a bony canal, and was torn in trying to lift up the dura, and gave rise to some troublesome hæmorrhage. On lifting up the dura to expose the ganglion very troublesome hæmorrhage ensued; after spending a considerable time in trying to stop this without avail, as every time the dura was lifted it recurred, and the patient's condition not being very good, I put in a gauze drain and temporarily closed the wound. Three days later I reopened, and retracting the dura back to the site of the ganglion, split the dura and attempted to liberate the ganglion. I was able to loosen the ganglion, but the hæmorrhage was so sudden and profuse that I was again unable to obtain a clear field of view, though about an hour and a half was spent in attempts to stop the bleeding by pressure. I then ceased further interference, having loosened the ganglion, and probably stretched both its roots and main branches by pulling on it. The wound in the scalp closed by primary union, a gauze drain being left in for 30 hours. The pulse for some days varied from 100 to 136; the temperature never went above 99·6. *Between the first and second operation the patient had several attacks of pain. After the second operation she had no further attack.* The right eye was sore and watered for a few days, the conjunctiva being somewhat injected; but this quickly quieted down and gave no further trouble; the cheek remained abnormally red. The day after the second operation the patient complained of pain in her right side along the course of the seventh intercostal nerve, and this was followed next day by a sharp attack of herpes zoster; otherwise her convalescence was uninterrupted, and when last heard of, two years after operation, there had been no return of pain.

As this case, like many others, naturally gives rise to the question why a cure resulted, it may be worth while to discuss shortly the various operative measures that have been adopted for the treatment of this affection. As the pain is mainly in the area of the various branches of the fifth nerve, the obvious treatment seemed to be to destroy the functions of these branches. This was done at first by simple division of the nerves, but only gave very temporary relief, for the nerves regenerated, and no permanent relief resulted. Then stretching the nerves was tried, again with only temporary results. Next, resection of pieces of the nerves closer and closer to their origin was practised by succeeding operators, with greater immediate and longer permanent relief of symptoms. Incidentally it was noted that compression of the carotid on the affected side temporarily stopped the pain,[1] and so a series of cases was tried where, after the

Digitized by Google

failure of peripheral division of the nerves, ligation of the common carotid gave relief from pain, and, in some cases, permanent cure. This operation, however, was a serious one, and was sometimes attended with unfortunate sequelæ, and has been discarded. A suggestion that the external carotid only should be tied has, so far as I can ascertain, not been carried out.

Later on, operators began to remove the Gasserian ganglion, and so destroy function in all three branches of the nerve. Rose [2] however, still advises removal of a considerable portion of the main divisions of the nerves close to the ganglion, sufficient being removed to prevent regeneration, and leaves the ganglion alone. Abbé[3] adopts a more ingenious plan. After dividing the main branches inside the skull, and close to the ganglion, he places a piece of rubber tissue between the cut ends and the ganglion, and so prevents regeneration.

Frazier and Spiller[4] have divided the sensory and motor roots of the ganglion, that is, of course, between the ganglion and the brain, apparently with success, for no return of pain was noted a year after operation. As there is no neurilemma sheath on the sensory and motor roots they do not regenerate, for recent researches of Ballance have shown that the presence of this sheath is necessary for regeneration of a nerve. A totally different class of operative interference, the *rationale* of which is not at first sight apparent, has been practised with success. This is the removal of the upper cervical ganglion of the sympathetic, of which eight successful cases have been reported recently.[5] Hence we have several totally different operations giving identical results. We have to find some reason to explain the facts that ligature of the carotid and excision of the superior cervical ganglion of the sympathetic give the same result as removal of the ganglion or some form of section of its branches or roots.

Leaving this point open for the present, the various ideas as to the pathology of the disease and the interpretation of the morbid appearances noted therein are worthy of consideration. Practically, the complaint is looked upon as either a peripheral neuritis which ascends up one or more branches of the fifth nerve, or else as an interstitial inflammation of the ganglion itself. I venture to suggest a third and, I think, more probable explanation, namely, that the complaint is primarily a vaso-motor change, and that any pathological alterations found in the nerves or ganglion are secondary to this, not primary. The pathological conditions that have been found vary considerably as regards the nerves. A neuritis has been found in some instances, no change at all in others. In the ganglion sometimes no change whatever has been found. Head[6] states that a ganglion he examined "showed nerve cells so perfect that they could be used as a standard specimen of normal staining of the cells of the ganglion," and expresses the opinion that the pathological basis of the disease is not yet discovered. Schwab[7] has found changes in the cells of the ganglion, but not the same on each occasion, as well as interstitial inflammation. At times certain changes in the blood-vessels have been noted, chiefly an endo-arteritis. During operations vaso-motor changes in the shape of patches of purplish discolouration on the peripheral nerves have been noted; otherwise little attempt has been made to explain either the symptoms or pathology of the disease. No theory of the disease that confines it to a neuritis of the fifth nerve with or without some pathological change in the ganglion will explain the phenomena of the attack or correlate the identical results achieved by widely different operations. No simple neuritis of the fifth nerve or disease of the ganglion will explain the increased radial tension preceding or accompanying the pain, or the flushing of the face, or the pain felt in some instances in the occipital region, or the fact that the usual pain areas do not coincide with the areas of distribution of the fifth as worked out from the areas of anæsthesia caused by paralysis of the fifth, or yet again the fact that compression of the common carotid gives temporary relief from the pain and that ligature has cured it. Nor does a neuritis of the fifth explain how removal of the superior cervical ganglion of the sympathetic can influence the complaint. On the other hand, if we look upon the condition as primarily a vaso-motor disturbance, it is easy to fit in the various symptoms as well as to explain the similar results obtained by dissimilar operations. Now, the vaso-motor supply of the parts with which we are concerned comes mainly from the superior cervical ganglion of the sympathetic. The vaso-motor (vaso-constrictor and vaso-dilator) nerves not only spread out along the various branches of the internal and external carotid, but form a plexus (the cavernous and carotid plexus) close alongside the Gasserian ganglion, to which vaso-motor fibres pass. Some vaso-motor fibres are distributed with the first division of the nerve; other fibres pass from the carotid plexus to Meckel's ganglion, forming its sympathetic branch.

Each branch of the fifth nerve passes through some bony canal accompanied by an artery, the second and third division by branches of the internal maxillary, the vaso-motor supply of which is derived directly from the superior

Digitized by Google

cervical ganglion of the sympathetic. The first division of the fifth nerve, however, contains vase-motor fibres derived from the cavernous and carotid plexuses through the Gasserian ganglion, though the artery that accompanies it is a branch of the internal carotid. It is evident that wherever the branches of the fifth nerve go they are in a greater part of their distribution accompanied by arteries, and as each branch with its accompanying artery passes through rigid bony canals in intimate relation to each other, any vascular distension of the artery could easily influence the nerve. It is worthy of note, however, that the area of distribution of accompanying arteries is less than the area of distribution of the nerve itself, and we find—as one would expect to find if a vaso-motor theory is to hold good—that while the areas of pain in trigeminal neuralgia correspond accurately to the areas of distribution of arteries, they do not correspond to the area of distribution of the nerve. The area of distribution of the fifth is more extensive than the area of the pain. This has been demonstrated by noting the anæsthetic area after destruction of the nerve, and this area is larger than the area of pain.[8] If the disease were a neuritis of the fifth we should expect the area of pain to correspond to the area of anæsthesia after section of the nerve.

If we look upon trigeminal neuralgia as having a vaso-motor basis we shall see that all the phenomena of the complaint are explicable on this hypothesis, and that the condition falls into the same category as the other paroxysmal neuroses, the vaso-motor basis of which has been suggested by Dr. Hare in his recent articles published in the *Australasian Medical Gazette*.[9] An intense vaso-motor dilation will explain the flushing, the lachrymation, salivation, and nasal discharge that occur; it accounts for the pain, and more than a neuritis does; accounts for the paroxysmal nature of the pain—so similar in many ways to the sudden pain of angina pectoris, an admittedly vaso-motor disease. Like angina, the peripheral blood pressure may be raised, as evidenced by the constricted radial at the onset of the paroxysms of pain, and this constriction may be, and probably is, usually primary to the vaso dilatation; and this constriction of peripheral arteries will account for the increased quantity of urine that has been occasionally noted to occur with the attacks.

Another point that is not easy of explanation by any theory of neuritis is the following:—A common point for paroxysms of pain to start from is the angle of the nose—a part that is supplied by the first division of the fifth, yet "complete extirpation of the first division of the fifth may still leave the nasal point unaffected." On a vaso-motor theory this is capable of explanation, as just at this spot the infraorbital branch of the internal maxillary anastomoses with the angular branch of the facial and the nasal and lachrymal branches of the ophthalmic arteries. The vaso-motor fibres of the ophthalmic artery run with the first division of the fifth, and will only affect this artery, while the anastomosing arteries, with their different nerve supply, may remain dilated and transmit sensations of pain to the brain through the second division of the nerve. A vaso-motor theory will also explain the pain felt at times in the occipital region and neck by an extension of the "vascular storm" to the occipital and other branches of the external carotid, while otherwise a "nervous radiation" has to be invoked, the explanation of which is difficult on anatomical grounds. On a vaso-motor theory all operative measures must act in one or other of the following ways:—

1. By interference with the blood supply:
   (*a*) By ligature of a main artery, such as the common carotid, which supplies the affected area.
   (*b*) By damage, and probably ligature, and occlusion of a peripheral artery during a peripheral operation.
2. By interference with vaso-motor nerves:
   (*a*) By direct interference with the superior cervical ganglion of the sympathetic.
   (*b*) Indirectly by operation on the Gasserian ganglion or nerve trunks in its immediate vicinity, which will necessarily damage the cavernous and carotid plexuses of the sympathetic and their fibres to the ganglion and nerve.
3. By cutting off the transmission of painful sensation from the affected areas by section of some part of the nerve, either its peripheral branches, the ganglion itself, or the sensory root of the ganglion, with probably incidental damage to both blood vessels and vaso-motor nerves during the operation, and possibly later, actual changes in the lumen of the arteries secondary to the section of the nerve trunks.

Admitting that vaso-motor conditions must have considerable influence in determining the phenomena of an attack, it is worth while to consider its analogy to other conditions, some admittedly of possible vaso-motor origin. Trousseau[10] long ago pointed out its likeness to epilepsy, and, in fact, called it epileptiform neuralgia, and treated it by large doses of opium. Arullani[11] recently has recalled this analogy, and advocates Flechsig's treatment

Digitized by Google

for epilepsy in these cases—a method of treatment that consists in increasing doses of morphia, and then the substitution of bromide. He reports four cures out of five cases, and Dr. Hare,[12] of Brisbane, has recently emphasised the probability of a vaso-motor mechanism for epilepsy.

Much more striking, however, is the analogy of trigeminal neuralgia to the condition described as erythromelalgia. The latter is characterised by sudden attacks of pain, redness, tenderness and sometimes swelling of the affected parts, usually the lower extremities, occasionally the hands, and rarely some other part of the body. Hanging down the affected limb increases the pain, raising it lessens it, and associated with the condition is dilatation, and often visible pulsation of the peripheral arteries in the affected areas. If we can imagine a limb with this disease, with tense, hot, reddened skin, tender to touch, and intensely painful, and mentally transfer the condition to the face with its increased vascular supply, the condition would be identical with what we know now as trigeminal neuralgia.

The pathology of erythromelalgia is most probably what Weir Mitchell calls a "vascular storm"—that is, a localised acute dilatation of some group of peripheral arteries. Though in a few instances some neuritis has been found in nerves from the affected part, as a rule they have been found to be healthy, and some changes have been noted in the smaller arteries, but in this connection it is necessary to remember that it is probable that long-continued or recurrent dilatation of an artery may lead to thickening of its intima.

Barlow,[13] referring to the possible pathology of erythromelalgia, remarks: "Unquestionably the peripheral irritation must be transmitted by afferent nerves, but the initial fault may be in tissues other than the nerve endings themselves, or, indeed, in some altered blood state, and if some limited form of neuritis ensue, it is quite possible that this may be a late or secondary change"; and I think these remarks apply equally to trigeminal neuralgia. Barlow is of opinion that this disease is not comparable to trigeminal neuralgia, because lowering the affected limb precipitates, and raising relieves an attack; but this argument is fallacious, for if we recognise the infinitely greater blood supply of the face and head, and how compressing the carotid relieves the pain, which is comparable to lessening the blood supply by raising the limb, the two conditions appear distinctly parallel, if not identical. Nerve section and nerve stretching have relieved in erythromelalgia, for probably the same reasons that they relieve or cure in trigeminal neuralgia—by interfering with vaso-motor nerves—an interference that in some instances has resulted in gangrene. If the relationship of trigeminal neuralgia to erythromelalgia be admitted, it comes into line with other paroxysmal neuroses. Transitional cases have been noted between Raynaud's disease and erythromelalgia on the one hand, and alternations with migraine and angina on the other, all conditions that can be better explained on a vaso-motor basis than by any other pathology.

If a vaso-motor pathology be admitted as a working basis, will it be of any use in treatment? Drugs are notoriously useless, unless we except perhaps the cases treated by Flechsig's method. In one of my own cases, where the rise of radial pulse tension was well marked at the onset of each paroxysm of pain, the continuous administration of nitro-glycerine gave relief from pain for about six months; but I have seen another case where the administration of nitro-glycerine always brought on an attack or aggravated an existing one.

The action of nitro-glycerine in these cases may be due to its paralysing action on the peripheral sympathetic nerve fibres, leading to loss of the vaso-tonic contraction constantly present in the arterioles. If this vaso-tonic contraction be abnormal, as in cases where well marked peripheral contraction is present, nitro-glycerine will relieve by dilatation of the peripheral arterioles restoring vascular equilibrium. If the peripheral contraction be not very evident or well marked, then the nitro-glycerine, which appears to affect first the arteries of the head and face, acts quickly on the arterioles in the affected area, which we may suppose, owing to previous attacks, are in a condition of unstable equilibrium and easily susceptible to external influence, so that an abnormal vaso-dilatation takes place with very slight provocation, while the succeeding peripheral dilatation in the rest of the body is not sufficient to counteract the local abnormal action of the vaso-dilators.

If the vaso-motor nerves are the ones to be attacked, it is obvious, from an operative point of view, that the proper procedure is to deal with these by removal of the superior cervical ganglion of the sympathetic, certainly before opening the skull. That removal of the cervical ganglia can influence the blood supply in their areas of distribution is borne out by the results of removal of these ganglia for exophthalmic goitre, the result of the operation being slowing of the pulse and diminution in the calibre of the arteries in the affected areas. It is necessary, however, to admit the possibility that long-continued local vascular dilatation may result in a neuritis of nerve or ganglion. This is only

Digitized by Google

the obvious result of long-continued congestion, and it is possible that this neuritis may in its turn give rise to symptoms.

It is interesting, however, to examine the mechanism by which removal of the sympathetic ganglia can effect cure and incidentally enquire into the possible mechanism of the paroxysms themselves, and in this latter connection I would suggest the possibility of the local vascular variations being Traube-Hering curves of a pathological instead of physiological range of intensity. These periodic constrictions and dilatations of vascular areas are undoubtedly increased under certain conditions, as, for instance, in the first and second stages of asphyxia, that is to say, when the arterioles are contracted and blood pressure rises the Traube-Hering curves are well marked.

If Dr. Hare's hypothesis,[14] "that vascular distension due to local vaso-dilatation, combined with widespread vaso-constriction," as the proximate factor of the pain in migraine and other paroxysmal neuroses is correct, it is possible that trigeminal neuralgia may be an aggravated example of the same class of affection. As has been observed, a constriction of the peripheral arteries occurs in trigeminal neuralgia; and Anstie[15] observed of neuralgia that "at the commencement of the painful paroxysm sphygmographic observation shows that the arterial tension is much increased, owing, in all probability, to spasm of the small vessels." Then we have a condition favourable for the production of well-marked Traube-Hering curves, and if we then add an area of vascular dilatation where the vaso-motor tone is at a minimum, and the artery wall already relaxed by excessive action of vaso-dilator fibres, we have an ideal condition for the production of Traube-Hering curves of pathological instead of physiological range of intensity. We can then imagine the paroxysms of pain coinciding with more and more marked oscillations of vaso-constriction and vaso-dilatation, the degree of dilatation progressively increasing, and the compensatory constriction being less and less, till the height of the paroxysm is reached; coming down again to a more or less normal mean by alternations of dilatation and constriction, where the dilatation gets progressively less and less and the contraction more and more marked; and it is conceivable that the rhythmically increasing intensity of the pain corresponds to the wider and wider range of dilatation and contraction. In connection with these curves it is interesting to note that Schäfer[16] remarks, "Traube curves may in some cases be peripheral and not central in origin."

We can now consider how removal of the superior cervical ganglion of the sympathetic will influence this condition. Both vaso-constrictor and vaso-dilator fibres run from the ganglion to the affected area, and the vaso-dilator action has greatly exceeded the vaso-constrictor. This is as might be expected, for Schäfer[17] remarks: "If vaso-constrictors and dilators are stimulated simultaneously, the constrictor influence at first overpowers the dilator. The dilator effect, however, appears as an after-result, for the vaso-dilator fibres are the less easily exhausted"; and also remarks[18] that "vaso-dilator fibres are more easily excited by an infrequent rate and weak form of stimulus."

If, then, the sympathetic connection is cut off, both vaso-dilator and vaso-constrictor influence will be in abeyance, the excessive vaso-dilatation will be put an end to, a certain amount of dilatation will remain from paralysis of vaso-constrictor influence, and the tone of the vascular muscles will be regulated by the tension of the blood within the arteries. The condition of paralysis does not, however, last long; the vessels recover tone either owing[19] "to the inherent nature of the muscular tissue" or "to a peripheral nervous mechanism." Schäfer remarks: "The recovery of tone in the blood-vessels appears often to be complete; this suggests that either partial regeneration of the cervical sympathetic has occurred, or that some vaso-motor fibres take a path other than that of the cervical sympathetic."

Whatever the explanation may be, an area of "vascular storm" has been put at rest to recover slowly newer and healthier vascular tone, possibly with a much diminished but less easily excitable vaso-motor connection.

If the mechanism of the disease prove to be vaso-motor, it will necessarily follow that in dealing with any case by operation the first step should be the removal of the superior cervical ganglion, and only on failure of this to relieve symptoms should division of the sensory root of the Gasserian ganglion, or cutting its main branches with interposition of rubber tissue after Abbé's method, be undertaken. Removal of the ganglion itself seems unnecessary.

References.—(1) Fowler, Annals of Surgery, vol. iii., No. 4. (2) Rose, *Practitioner*, May, 1903. (3) Abbé, Annals of Surgery, vol. xxvii., No. 1. (4) Frazier and Spiller, *Philadelphia Med. Journal*, Dec., 1901, Oct., 1902. (5) Cavazzani, American Year-Book Med., 1903. (6) Head, Allbutt's, System of Medicine, vol. vi., p. 733. (7) Schwab, Annals of Surgery, vol. vi., No. 6. (8) Allbutt, System of Medicine, vol. vi., p. 730. (9) Hare, Mechanism of the Paroxysmal Neuroses, *Aust. Med. Gazette*, July, Aug., Sept., 1903. (10) Trousseau, Clinical Medicine, vol. i., p. 109. (11) Arullani, American Year-Book, Medicine, 1903. (12) Hare, *Aust. Med. Gazette*, July, 1902, *et seq.* (13) Allbutt, System of Medicine, vol. vi., p. 616. (14) Hare, *Aust. Med. Gazette*, July, 1903. (15) Anstie, Neuralgia, p. 11. (16) Schäfer, Text-Book of Physiology, vol. ii., p. 139. (17) Schäfer, ibid., p. 134. (18) Schäfer, ibid. p., 135. (19) Schäfer, ibid., p. 658.

Digitized by Google

CASE OF CHRONIC NEPHRITIS WITH ASCITES AND REPEATED PARACENTESIS.

By Archibald A. Hamilton, B.A., M.B., B.Ch. (Dubl.), Hon. Assistant Physician, Adelaide Hospital, Adelaide, S.A.

W.R.P.—Family history fairly good. Had measles, followed by pneumonia, at three years of age. Was seen first by me in May, 1900, when he was 10 years old. He was then suffering, in common with other children of the household, from influenza. There was slight puffiness of the eyelids, and on examining his urine I found that it contained a considerable quantity of albumen. In September, 1900. marked œdema of the face set in, followed by swelling of the legs, scrotum, abdominal wall and loins. There was also some effusion into both pleural cavities. The urine contained 7 grammes of albumen to the litre, by Esbach's albuminometer, and his abdomen measured 26½ in. at the umbilicus. The general anasarca then diminished, and his abdomen was tapped for the first time on November 9th, 1900. From that date till his death, on 11th July last, the operation has been repeated about every fortnight. The swelling disappeared entirely from the scrotum and the subcutaneous tissues generally till a couple of months before his death.

His general health remained fairly good, and he could get about wonderfully well, except for the last two or three days before each tapping and during the remainder of the same day. He was exceptionally bright and intelligent, and when indoors his time was fully occupied with books, sericulture and philatelics. On one visit I found him deep in Gibbons' "Decline and Fall."

He did not grow, and his small anæmic face and wasted limbs presented a weird contrast to his enormous abdomen. His appetite was usually good and at times voracious, while he showed a remarkable aptitude for consuming and digesting fatty foods.

During 1901 and 1902 but little change took place in his condition. The urine was uniformly loaded with albumen, the coagulum occupying the whole space allotted to urine in Esbach's instrument, and contained numerous casts.

Early this year he began to fail, and complained at times of faintness when being tapped, so that the abdomen could not be entirely emptied. He always steadfastly refused to have any extraneous support applied in the form of a binder. In the end of April, just as he was eagerly looking forward to forming part of the material for our clinical evening, which was held on the 30th of that month, a sudden change for the worse set in. His heart failed, he became unconscious, and general œdema returned. Rallying again, he recovered after a few days his speech and hearing, both of which had been much affected, but retained a very marked squint to the end.

The œdema subsided to a great extent, and he lived for about two months longer, when convulsions set in, followed by coma, and he died on July 11th, 1903.

As far as treatment went, I needly hardly say that our little patient ran through the gamut of diuretics and diaphoretics, medicinal, dietetic and hydropathic. Alkalies and milk diet, vapour baths and hydragogue cathartics, separately and in combination, he had them all.

In the early stage of his illness, Dr. Marten kindly saw him with me, and suggested cupping over the kidneys. This was done, but the process proved distasteful to the lad, and was not repeated. Finally we settled down to periodical tappings and the intermittent administration of iron, generally in the form of a mixture of liq. ammon. acet. and perchloride of iron.

He was tapped altogether 61 times, and the entire quantity drawn off amounted to 16,745 oz.

= 837 pints,
or 418 quarts
= 104 gallons.

This quantity of fluid in the form of distilled water would weigh almost half a ton.

As far as I have been able to look the matter up, I cannot find any record of a patient so young having been tapped so often, nor have I met with any account of such persistent and extreme ascites in what was primarily an ordinary case of chronic nephritis. In most of the cases recorded of repeated paracentesis for excessive ascites, the cause has been obstruction to the portal circulation, generally by cirrhosis of the liver.

Dr. Cavenagh Mainwaring kindly made a post-mortem examination for me, and will give you a detailed account of the condition of things. We were asked not to open the skull, and therefore could not investigate the cause of the squint from which he suffered during the last two months of his life.

We can scarcely attribute the condition to a hæmorrhage, as there was no other paralysis. The deafness and aphasia were of very brief duration, and may have been due to some local œdema.

I think it was noteworthy that, out of the 61 tappings, there never was the slightest cellulitis or trouble arising from the punctures. This may have been partly due to the fact that the abdomen was generally quite emptied, and

Digitized by Google

that, consequently, very little, if any, leakage took place. When the abdomen was opened there were no traces of adhesions in any place where the trocar had penetrated.

My routine practice was to cleanse the spot selected, freeze the skin with chloride of ethyl, make a small incision with a scalpel, and pass in a medium-sized trocar and canula of Potain's aspirator, with a long piece of rubber tubing attached, which acted as a syphon. I did not apply any plaster or dressing over the puncture.

I thought that the points indicated above rendered this case sufficiently interesting to justify me in bringing it before you, and I regret much that the sudden change for the worse in his condition just at that time prevented me from showing you the boy during his lifetime at our April meeting.

POST-MORTEM NOTES BY W. R. CAVENAGH MAINWARING, F.R.C.S.E.

Complexion very pale; definite œdema about the face, and also the arms and legs, but not very marked.

Thorax.—Heart weighed 9 oz.; left ventricle hypertrophied, but not apparently dilated. One small patch of atheroma on posterior cusp of mitral valve, otherwise normal. *Lungs.*—Both pleuræ contained a slight excess of pleural fluid, slightly more on right. Visceral pleuræ over both lungs, thickened, white and opaque, more marked at the bases, and more so on the left than on the right. Both lungs congested and full of blood, but otherwise normal.

Abdomen.—Peritoneal cavity contained about a gallon and a half of clear straw-coloured fluid. The great omentum was puckered and drawn up into the upper abdomen, leaving the intestines uncovered, and was firmly adherent to the parietal peritoneum in that situation; its peritoneal covering was thickened, and white and opaque from fatty degeneration. The peritoneum over the liver was similarly white and thickened, and the parietal peritoneum firmly adherent to the visceral peritoneum by numerous bands of adhesions. The liver itself was slightly atrophied in both lobes, and had lost its typical shape. There was nothing present that could have obstructed the portal vein. The peritoneum over the spleen was also very much thickened, and very white and opaque, the spleen itself being normal in size, though a little firmer in consistence. The remaining visceral peritoneum over the intestines was also thick and opaque, but not so markedly, but the coils of intestine were not adherent. The kidneys were very pale and weighed together 8 oz.; the capsule was adherent in parts. On section the cortex was blurred and indistinct, but not diminished in area. Microscopic sections showed the presence of glomerulo nephritis, together with a slight amount of fibrosis.

The brain and spinal cord were not examined.

From a pathological standpoint the ascites seems to have been due to a condition of chronic peritonitis, leading to thickening and degeneration of that membrane, allowing of the exudation of the serum from the blood.

Such a condition might have arisen from some cause quite apart from the kidney trouble, might have been caused by the same exciting cause that induced the changes in these organs, or might have been secondary to the nephritis.

Careful examination failed to discover any other cause, such as tuberculosis or syphilis, that might have originated the changes in the peritoneum, and I came to the conclusion that the condition was secondary to the kidney trouble.

Chronic peritonitis, apart from the tubercular variety, is not of common occurrence, but amongst its causes nephritis has an established position, and the similar but less marked condition of the pleura was probably due to the same cause. Beyond the atrophy of the liver there was no evidence of anything that might by interference with the portal circulation have given rise to the ascites; and, with regard to this question, it is interesting to note the fact of the adhesions of the visceral peritoneum over the omentum and the liver to the parietal peritoneum. Had the ascites been of portal origin it might have been expected that the communication thus established with the general circulation would have relieved the portal congestion, as is the case when such adhesion is brought about by operative procedure. In this case, however, the presence of adhesions does not seem to have had any influence on the effusion at all, which is what would be expected were that effusion due to exudation through an injured peritoneum. It might possibly, therefore, be well to point out that not every case of ascites would be benefited by establishing a connection between the portal and the general circulation, but before advising such a procedure that it would be advisable to establish for certain that the condition was due to portal obstruction.

(Read before the South Australian Branch of the British Medical Association.)

The health committee of the Sydney City Council have adopted the suggestion of Dr. W. G. Armstrong that in view of the approaching hot weather, and the increase in infantile mortality from diarrhœa which would certainly accompany it, a formula should be printed and distributed through the post to all households in thickly populated and poor neighbourhoods in which a birth had been registered during the past six months.

Digitized by Google

NOTES ON CASE OF LYMPHADENOMA OR LYMPHO-SARCOMA PRESENTING SOME UNUSUAL FEATURES.

By J. M. Mason, M.D., D.P.H. (Camb.), Chief Health Officer for New Zealand.

A CONSIDERATION of the following case will, I think, for several reasons, involve no waste of valuable time. General lymphadenoma is a relatively rare disease in the colony. This case presented some unusual clinical symptoms, and the sections of liver and spleen which I shall show you settle beyond question what its real nature was. The case came under observation first as a possible one of plague, and its early stages illustrate in a measure some of the difficulties which may attend the diagnosis of this many-headed disease. A young man previously healthy, working in a meat shed close to a wharf in a town in which plague had existed, and possibly then did exist, called upon his medical attendant, complaining of a small swelling on his left inguinal region. There was a slight elevation of temperature, and some general systemic disturbance. There was no history of venereal disease, and there was no hernia. The patient was at once removed to the isolation hospital for observation. An endeavour was made to obtain some fluid from the gland, but very little could be got. Microscopical and cultural examination of it gave a negative result as regards plague. In the course of the week following the glands in the left popliteal and right inguinal regions showed evidence of enlargement. The gland in the left inguinal region was incised and found to be firm. A scraping from the cut surface was examined, both microscopically and by the aid of cultures, and again the result showed no plague bacilli. I do not intend to weary you by describing the symptoms that supervened either sequentially or in detail; suffice it to say that by the end of six weeks the abdominal, axillary, and cervical glands all showed marked enlargement. His general condition about this time appeared to be much better than it was during the earlier part of his illness, and a slight decrease in the size of some of the glands seemed to suggest that he might be on the mend. As a matter of fact the medical men in attendance (Drs. Symes and Fenwick) reported that he was much better. One evening a fellow patient in the camp was found lying helpless upon the road some half-mile away, and the patient went out and actually carried him into camp. No mean feat even for a healthy man.

Two days after this exertion, however, the cervical glands increased rapidly, so much so that it was considered probable that tracheotomy might be required, owing to the pressure upon the trachea. This operation was not done, and the patient gradually sank from asthenia about three months from the outset of the disease. I regret that no very complete examination of his blood was made during life, so that I am unable to say either what his "blood decimal" or the relation of the red to white corpuscles were.

Once the question of plague was settled all who saw him agreed that the case was one of lymphadenoma or Hodgkins' disease. I may say that the spleen, along with the other larger glands, was markedly increased in size.

With the general symptoms and course of an ordinary case of Hodgkins' disease you are all acquainted, and therefore I need not rehearse them. The most unusual feature of this case was the absence, until near the end, of that marked enfeeblement which almost always accompanies lymphadenoma. The rapidity with which it ran its course is another feature to which I would direct your attention, but a casual glance at the specimens under the microscope will at once disclose the reason of this. The invading cells are of the smaller sarcomatous type; they have taken the stain well, which is a measure and indication of their great vitality. No barrier has been able to withstand their advance, and, as you will see, they have almost obliterated the whole of the gland tissues proper; only here and there can a portion of the liver or spleen structure be seen. Viewed from the pathological standpoint, the disease must be classed as general lympho-sarcoma and not as one of Hodgkins' disease. The rapidity with which these cells traversed the whole glandular system emphasise a lesson which I endeavoured to impress upon our members at the meeting at Christchurch. In the discussion then, Dr. Martin and myself set out to prove that unless operated upon at a very early stage sarcomatous tumours rarely yielded satisfactory results to the surgeon unless in regions such as the kidney or brain. That early and total excision of a sarcomatous tumour will effect a cure cannot be denied in the face of well authenticated data; but, speaking generally, I reiterate what I stated then, that while success often attends the surgeon's knife in malignant tumours of the carcinomatous type, it fails most unquestionably when directed against those of the sarcomatous type. Why it should be so is easily to be seen in the sections which Mr. Barker has so skilfully prepared. With a comparatively slow-growing growth like carcinoma, with its more highly individualised cells, it may be possible to recognise and cut outside its uttermost outposts;

Digitized by Google

but with sarcoma and its invading lines of small cells in Indian file, it is absolutely impossible to recognise the limits of the growth when it occurs in other than a limb or an encapsuled organ. I am quite aware of the surgical successes which have attended interference in cases of sarcoma of the leg, for instance; but I suggest now, as I have done before, that the unequal success which all surgeons must admit obtain in the treatment of malignant tumours may be explained in a great measure by our attacking sarcoma and carcinoma on the same general lines.

(Read before the Annual Meeting of the New Zealand Branch of the British Medical Association.)

PNEUMOTHORAX DUE TO PULMONARY HYDATID.

By W. T. Hayward, M.R.C.S. (Eng.), L.K.Q.C.P. (Irel.), Hon. Physician Adelaide Hospital.

CATHERINE C., aged 20, a fairly healthy-looking girl, was admitted in the Adelaide Hospital on February 20, 1901, complaining of shortness of breath when she walked quickly. Says she had bronchitis last August, which continued more or less till Christmas time, when she felt something in her left chest, and her present symptoms date from that time.

There was nothing of moment in her family history. On admission her temperature was normal, and there was no nightly rise in it. She was not anæmic. The urine was normal. On examining the chest a marked deficiency in the movement of the left chest was noticed. The apex was not visible or palpable in the cardiac area. The measurements of the chest were 15½ in. on both sides below the mammæ; above, 16 in. on the right and 15½ in. on the left. No pain on respiration. Vocal fremitus absent over the whole of the left chest. The apex beat was felt over the ensiform cartilage. The precordial area was resonant, but a corresponding area on the right of the sternum was dull; over this the heart sounds were most distinct. The percussion note was normal over the right chest with above exceptions, somewhat diminished over the front and upper part of the back of left chest, and dull at the base. Respiratory and vocal resonance normal on the right side, absent on the left. Metallic tinkling and the bell sound present on left side.

On exploratory aspiration 2 oz. of a cloudy fluid, milky in appearance, with a yellowish tinge, was withdrawn. It was alkaline; specific gravity, 1010; pyogenes albus bacillus present; no pneumococcus. On March 3rd, 13 oz. of fluid of a similar character was withdrawn. After the operation the patient became greatly distressed, the inspiration being very rapid, the countenance dusky, the pulse extremely quick. These symptoms rapidly subsiding, she improved considerably, but the physical signs remained about the same. She left the hospital on the 26th. On April 22nd she was re-admitted, complaining that on coughing she had pains at the back of the left side of chest. Her temperature, 98·4°; pulse, 59; respiration, 32. The physical signs showed the heart to be on the right of the sternum, that the left pleura contained air and possibly fluid at the base; there was a friction rub over the upper part of the scapular region. On exploration only about a test tube full of fluid was withdrawn. Under the influence of complete rest in bed the patient began to improve, the physical signs showed that the heart was gradually coming back to its proper position, and the left lung was attempting to expand. On the 27th of the month, however, I found that the heart was again on the right side of the sternum and that the left pleura contained air and possibly fluid. I therefore asked Dr. Giles to open the chest, with the idea that by this means the aperture in the lung might more firmly close.

On June 4th Dr. Giles excised a portion of rib in the left posterior axilla. The pleura did not bulge but was sucked in. On incising it a few drachms of blood-stained serum escaped with some flakes. The lung was felt collapsed. A drainage tube was inserted, and this was retained for three weeks. Nothing eventful marked the progress of the case during her recovery from the operation. The wound having completely closed, the patient was returned to my ward on July 30th. She then complained of a good deal of pain in the right side of the chest, but I could discover no cause for it. She said she had coughed a good deal, and had brought up expectoration, sometimes fluid and other times thick, which had an offensive odour. On examination: Temperature normal, pulse 80, respiration 35. Left side of chest 2 in. smaller than right. Spinal column has a convexity towards the right side. Physical signs pointed to a collapsed lung. The patient quarrelled with the nurse, and left the hospital next day. I heard no more of her till November, 1902, when Dr. Evans, of Willunga, kindly wrote to me saying that she had been under his care. She had consulted him on October 19th, complaining of pain in the side cough, hæmoptysis, offensive expectoration, and loss of blood. He wrote: "I found a bulging scar (evidently the operation wound) and a good deal of dulness. After freezing with ethyl chloride I opened the old scar, and a large amount of viscid mattery material welled out. I thought it a suppurating

Digitized by Google

hydatid. Next day she coughed up some 'skin,' which, under the microscope, showed the typical lamination. She rapidly improved, and was apparently quite well before she left for her home, about a fortnight later." I hear that she has continued well ever since.

Dr. Fowler, in his work, "Diseases of the Lungs," says:—"Probably in about 90 per cent. of all cases of pneumothorax (due to diseases of lungs and bronchi) the condition results from perforation of the pleura by a tubercular process affecting the subjacent lung. In the remaining 10 per cent., perforation of the lung by an empyema comes first in point of frequency amongst the causes, and then pulmonary gangrene. Amongst still rarer causes, abscess and hydatids of the lung or mediastinum." Doubtless, in Australia, the percentage, as far as hydatids are concerned, occupies a different position, but cases are sufficiently rare to warrant my bringing this one under your notice. Though I failed to detect any evidence of tubercular disease, I was under the impression that the pneumothorax was due to it. I thought that probably a small tubercular abscess had burst into the pleura, and that the subsequent collapse of the lung had prevented the ordinary signs being manifested. There were many points about the case, such as the continued normal temperature, that were against this diagnosis, but no more probable cause occurred to me. Looking back at the case, it seems strange that the remembrance of the many times the ubiquitous hydatid has marred a diagnosis did not cause me to give it some consideration, but I confess such was not the case. The area of dulness that was noted on more than one occasion when the air in the chest had been more or less absorbed, and the absence of a sufficient quantity of fluid withdrawn by aspiration to account for it, might have suggested its possibility, but owing, I take it, from fresh admissions of air into the pleura at different times, the physical signs were variable. When the chest was opened the state of collapse of the lung prevented the detection of the hydatid by the fingers. An interesting point in connection with the case is the supervention of alarming symptoms on one occasion when an operation was performed. These were similar to those that many of us have experienced when we have inadvertently tapped an hydatid of the lung when masked by a coincident pleuritic effusion. I trust that by recording this case I may direct attention to the possibility of pneumothorax being due to an hydatid of the lung.

(Read before the South Australian Branch of the British Medical Association.)

PNEUMOTHORAX.

By Arthur H. Gault, M.D. (Lond.), Adelaide

PNEUMOTHORAX is a comparatively common condition, and my only reason for reporting this case is that it belongs to that rare group of cases which occur in persons apparently healthy.

Pulmonary tuberculosis is by far the most common cause of pneumothorax, accounting for 90 per cent. of the cases. It is a comparatively common accident in advanced phthisis. Of 1000 consecutive post-mortems at the Brompton Hospital, pneumothorax was present in 65. Gangrene, abscess, or hydatid of the lung accounted for most of the other cases. Occasionally it is brought about by disease elsewhere causing a communication with some other air-containing organ. It has been reported in cases of emphysema and whooping-cough. It may also occur as the result of the decomposition of fluid in the pleural sac, due to the presence of gas-forming organisms. In Australia it is a fairly common complication in hydatid disease of lungs. Then there is another group of cases, to which mine belongs, which occur in those apparently healthy; but as recovery often takes place in these, there is no opportunity for deciding as to the presence or absence of any pathological cause. The late Sir William Gull is reported to have said: "Call no man healthy until he is dead and Dr. ——— has made the post-mortem."

E.C., a girl aged 18, came to my consulting room one afternoon. Until the morning of the same day she had enjoyed good health, and had had no cough. Shortly after dressing, and while going about her usual work, but not in any way exerting herself, she had suddenly felt a severe pain in her left side, and found herself very short of breath. This condition had continued, and she had with some difficulty walked half a mile to my room. I found her suffering from marked dyspnœa and pain in her left side. On examination it was noticed that the lower part of the left chest was immovable; slight, though defective, movement at the upper part. On percussion the lower half of the left chest was found distinctly hyperresonant; the upper part of same side the note was somewhat higher pitched than on right side. On auscultation, breath sounds were absent, but on deep breathing they could be heard, but distant, and with an amphoric note. Over the upper part of the lung the breath sounds were weak compared with those of right side. The area of cardiac dulness had disappeared, and no impulse could be felt. A

Digitized by Google

distinct bell note could be elicited by striking a coin, and by means of this sign the area of the pneumothorax could easily be marked out. It was found to correspond to the lower lobe of the left lung, though not reaching quite so high behind. I thought it was probably a case of latent phthisis, and the patient was kept in bed with open-air conditions as much as possible for several weeks. The pain was severe for a few days, but there was only a slight rise of temperature (99·4) for three evenings. There was very little cough, no expectoration, no fluid formed in the chest, and in four weeks' time the lung had returned to its normal condition. At all stages a careful examination failed to reveal any special trouble, and up to the present time, 18 months, the girl has kept perfectly well. I have known the girl and her family almost since her birth, and there is no hereditary disposition to phthisis, and it looks as if it were really a case where the healthy lung had ruptured without any special exertion.

Various theories have been put forward to account for these cases. A case was recently reported where a child 2½ years old developed pneumothorax, and died in 36 hours. In this case it was found by post-mortem that a grain of wheat had perforated the pleura, having been inspired by the child, but it is extremely unlikely that this should occur in an adult without any symptoms. Some American writers have suggested the possibility of a gas being formed rapidly in the pleural sac without the presence of micro-organisms, a kind of secretion, as it were, from the serous membrane; but this seems a mere surmise, and there is nothing whatever to support it. An analysis of the composition of the gas present might decide the matter, but I think there is no doubt that there is some undiscovered pathological cause present, most likely a small tuberculous deposit. It is stated that these cases frequently develop, after a time, consumption, and it will be interesting to keep this case under observation.

While speaking of the occurrence of pneumothorax in phthisis, I might refer to the opinion expressed by Dr. Hughes, of Guy's Hospital, many years ago, and generally accepted, that if pneumothorax does not prove fatal in the course of a few days or weeks, which it does in the majority of cases, that it appears to have a favourable influence in the course of active pulmonary tuberculosis. It was this thought that led Dr. Murphy, of Chicago, to suggest the artificial induction of pneumothorax by injecting nitrogen into the pleural sac as a remedy for consumption. I have had two cases recently which certainly seem to favour this view. Both cases were male patients in whom there was very active progressing tuberculous disease, when a pneumothorax occurred with very serious symptoms for a time, but afterwards marked improvement took place, and one case is probably going on to permanent recovery; the other has remained many years with little change. It is no doubt the complete rest which is secured to the lung which causes the improvement; it is better still to secure this advantage by sanatorium treatment.

(Read before the South Australian Branch of the British Medical Association.)

GONORRHŒA IN THE FEMALE.

By C. MacLaurin, M.B., C.M. (Edin.), Hon. Assistant Surgeon to Prince Alfred and the Women's Hospitals, Sydney.

RECENTLY an unusually large number of cases of gonorrhœa in the female have appeared at my out-patient cliniques both in Prince Alfred and the Women's Hospitals, almost leading one to suspect a recrudescence of this disease, always so common in Sydney. As the subject is of great medico-legal and practical importance, perhaps a brief *resumé* of its main features may not come amiss.

Incubation Period.—In the female this is difficult to ascertain for several reasons, one of which is that women are very inaccurate in their venereal histories. Most of the cases occur in prostitutes, who may really not know when they were infected. In married women one dare not draw attention to the husband as a possible cause, and single women are naturally not disposed to make unnecessary admissions. So it is not easy to ascertain the possible limits of the incubation period in the female, though clearly it is a matter of great medico-legal importance. I am inclined to believe that the limits in the male are from three to eight days, and probably the same period holds good in the female.

Symptoms.—Malaise, and often a feeling of chill; pain in the back, groins, and front of thighs; smarting on micturition, and slight white discharge, appear to be the prodromal symptoms. In 24 hours these are followed by rather severe illness. The patient is miserable and depressed, and the temperature may rise to 101°; there is a profuse thick tenacious discharge, yellowish, greenish-yellow, brownish, or white in appearance, and often of an offensive smell; micturition is scalding, but not increased in frequency; the labia are tender and swollen, rendering walking and sitting

Digitized by Google

painful. There may be pain and buboes in the groin, and these buboes tend to suppurate, in my experience, more frequently in women than in men. Often the patients complain of intolerable itching about the vulval orifice. The temperature, in uncomplicated cases, usually falls to normal before the end of a week, though the acute symptoms last ten to 14 days. The discharge then becomes thin, white and watery, and loses its offensive odour, though in some cases it remains tenacious; and it may persist indefinitely, the patient passing into a chronic gleet. This condition is exceedingly difficult to differentiate from an ordinary cervical leucorrhœa. It may last for many years —indeed some surgeons hold that gonorrhœa in the female is incurable—and be accompanied by occasional Bartholinian abscesses. I have now under my care two patients, one of whom has suffered for nine and the other for three years.

Sometimes acute abdominal symptoms may occur, indicating pyo-salpinx or peritonitis, but these complications are not very common in healthy women properly treated from the first.

Signs.—On examination we note the characteristic discharge adhering to the skin and hair in thick offensive crusts; the skin around is often red and excoriated, or it may be cracked or stained brown; the smell is offensive, and usually, even in cleanly patients, the parts appear dirty; the orifices of the Bartholinian glands are red and punctate; the labia majora are œdematous; the orifice of the vagina red and often slimy; the urethra everted, red, and swollen. The general appearance of the patient is that of a person really ill; in fact, my experience is that women generally suffer much more than men.

The situation of the primary infection is a matter of dispute. Most surgeons appear to consider the urethra and vulval orifice the chief seat of the disease, but recently an attempt has been made to show that it really lies in the posterior fornix. At all events the lining membrane of the vagina rarely, in my experience, shows any signs of inflammation, while the vulva and os uteri are invariably highly affected. In the chronic stage one simply notes a thin leucorrhœal discharge, with redness, and sometimes erosion about the os, and occasionally thickening in the region of the Bartholinian glands. There may be scars of old buboes, and the inguinal glands may be permanently enlarged. It is noteworthy that the femoral glands have also been known to suffer in gonorrhœa, so the absence of any sore on the lower limb should always lead to investigation of the genitals in femoral enlargement.

Complications.—The well-known serious complications of gonorrhœa, such as pyo-salpinx, salpingitis, peritonitis, etc., belong definitely to the region of gynæcology, and we need not treat of them now, but there are many smaller troubles which the surgeon has to treat. I have noticed urethral caruncle in four cases of gonorrhœa. Possibly the irritation may have caused it. Bartholinian abscess is very common. Cystitis occurs rather frequently. Chronic labial eczema and herpes, often most intractable, are occasionally seen. Buboes have already been noticed.

Gonorrhœal arthritis is very common. Usually it attacks the knee-joint first, and in most cases several joints are rapidly affected, as a rule the ankle suffering early. It seldom recovers until the original disease is cured. One curious form is noteworthy; there is fluid in the joint, generally the knee, but neither pain nor rise of temperature. It can be distinguished from tubercle by the fact that there is little wasting of the limb. Recently a similar lesion has been described as occurring in girls without gonorrhœa, whose menstrual functions are disordered, but the question always arises, May not the gonorrhœa have been overlooked? Acute flat-foot, especially of one foot, no plantar corn or other obvious cause, is strongly characteristic of gonorrhœa. To sum up, any acute arthritis occurring without injury in a young person of either sex, especially if in more than one joint, should always make us suspect gonorrhœal infection.

Diagnosis.—Easy in a typical case, such as we have described, but in a mild or chronic case certainty may be unattainable. Some (notably A. R. Simpson) have thought Bartholinian abscess, pathognomonic; but it is difficult to be convinced by a statement so wide and of such serious import. I have seen cases which seemed to have been caused by injury without the gonococcus at all, but truthful evidence is difficult to obtain.

Important points upon which to found a diagnosis are certainly scalding on micturition, swelling of the labia, tenacious discharge, and the peculiar thick crusts on the hair and skin; offensive smell, foul and dirty appearance, and excoriation of the surrounding integuments must also be noted, while Bartholinian abscess is undoubtedly highly suspicious. In chronic cases inquiry may reveal a history of an acute attack, and the presence of warts is somewhat characteristic.

Recently an enormous amount of work has been done which appears to throw doubt on the value of the microscope as a diagnostic agent in gonorrhœa. True, the appearance of the real gonococcus is fairly definite, and it is

Digitized by Google

undoubtedly pathognomonic; but it may be confused with other cocci, and apparently is not always to be found; in fact, it appears that the gonococcus is only found by cover-slip preparation in 23 per cent. of cases having a clinical history of gonorrhœa. It is a small diplococcus, in shape like two kidneys placed together; it decolourises with Gram's method, and occurs in clumps. To be characteristic these clumps ought to occur in and around the pus-cells, but they may occur independently. Other cocci resembling these are also found; they occur in smaller clumps in the cells, but generally retain Gram's stains.

If the gonococcus is found, then the evidence is strong; but frequently the characteristic cell-clump arrangement is wanting. This arrangement seems to be due to active phagocytosis, which naturally occur very little in the first acute stage, when the tissues are almost overwhelmed by the attack; and other little-known conditions must also affect them, such as possibly hostile organisms, other toxins, etc. It is certainly true that in many cases clinically indistinguishable from gonorrhœa no gonococci are found, as, for instance, the following, which has recently been under my observation:

Patient, aged 21, contracted gonorrhœa 18 months ago, when pregnant; the child developed ophthalmia neonatorum. She was apparently cured, but was subject from time to time to relapses, never very severe. The last of these, however, whether new infection or not, was a typical gonorrhœa, and I had the pus examined by one of the most expert microscopists here. Bacilli of various kinds, pus-cocci, and various diplococci were found, but no definite gonococci discharge. In this case, therefore, we see a patient suffering from a contagious disease—several men had proof that it was contagious—indistinguishable clinically from gonorrhœa, but showing no gonococci. Nor is this a peculiar instance; it frequently occurs. The conclusion is, therefore, that a positive discovery of what are thought to be gonococci is valuable evidence; the absence of them is not of great weight one way or the other. But in such a grave question only an expert microscopist should be asked to form an opinion, and he will be found the last man in the world to give one from cover-slip preparations.

Treatment.—Rest in bed is necessary in the acute stages, together with milk diet and saline laxatives. The scalding is somewhat relieved by large doses of potassium citrate, 60 or 80 grains per diem. I have never seen any benefit from urotropin in the female, though in the male it sometimes acts remarkably well in gonorrhœa. Warm hip-baths and scrupulous cleanliness are valuable, but I doubt whether the douche is altogether advisable. It often causes much pain and discomfort, and the nozzle may carry the infection higher. If used at all permanganate of potash is the least innocuous, and linseed tea is strongly recommended by German authors, though it would seem to be putting more dead organic matter into an already foul cavity. Hot fomentations relieve the swelling of the vulva; ice-pads are also valuable.

In the sub-acute stage, and when the disease has become chronic, more active measures are available. The douche, though somewhat beneficial, will not cure. The best douches are, in my experience, ordinary alum (one teaspoonful to a pint) and mercuric iodide (1 in 5000). More successful than the douche is the following treatment:—A speculum is passed, and all discharge dried away both from the os uteri and the external parts. The whole canal is then swabbed with nitrate of silver (20 gr. to the ounce). This is left to act for a few minutes and then washed off with water containing a little common salt. A plug of cotton-wool soaked in ichthyol (one part) and glycerine (nine parts) is then inserted and left for 12 hours. This treatment is repeated twice weekly, the patient inserting a plug every night. She should be warned that with every care the nitrate will probably stain her underlinen, and that the course of the disease is often very tedious.

Similar treatment with 5 per cent. solution of protargol, sulphocarbonate of zinc (40 gr. to an ounce), and other astringents, acts well. On the whole, I prefer the nitrate.

Ethics.—What are we to say when a husband or mother asks us what disease the patient has? It is much wiser for every reason not even to hint at the possibility of venereal affection. If the woman has really caught it from her husband there is no object in telling him so; the mischief is already done. We must remember that she may not have caught it from her husband, and it is no part of the duty of a surgeon to act as *censor morum*, or to rouse domestic broils. Again, it is said to be possible that a man may have gonorrhœa in his youth, and it may lie latent until he is married, and then he infects his wife. It is a convenient theory, and may be made to cover a deal of human frailty. All the same it is most unwise, in order to clear up a diagnosis, to ask the husband whether he has ever had gonorrhœa. A hint at such a thing will make you enemies of both parties, and if in doubt as to the diagnosis act as if it were gonorrhœa and say nothing.

Similarly, if the patient is unmarried, we are bound to respect her secret. We may not tell

Digitized by Google

even her mother. If she thinks fit to do so she will fast enough.

At the same time, if a person who has a right to know asks outright whether the disease is gonorrhœa, then we are bound to answer truthfully to the best of our knowledge and belief, but we must be prepared to repeat our statement on oath in the law courts if necessary. Those leaders of the profession whom I have consulted are of opinion that the only person who has this right is a married woman's husband. It has been decided frequently that a mistress has no right to know what is the matter with her servant, even though she may be paying the doctor's fees; and an incautious hint may lead to an action for slander which will probably make all the parties his enemies, and lead to heavy damages against him.

I have to express my best thanks to Dr. Tidswell and Dr. R. Greig Smith for information concerning recent work upon the gonococcus.

SOME CASES OF HYSTERECTOMY.

By James T. Mitchell, M.D., M.R.C.S., Ballarat, Victoria.

The small number of cases occurring in this district, in which, in the past, it has been considered justifiable to perform the operation of hysterectomy, has limited our experience of this useful proceeding. Believing, as I do, that the operation has a wider field of usefulness than has hitherto been accorded to it, I venture to bring under your notice three cases upon which I have lately operated. We have been inclined to regard hysterectomy as a last resort, only to be undertaken in malignant disease of the cervix uteri. Every year shows that, with improved methods and increased experience, the dangers dwindle away until now they are practically no greater than in an ordinary ovariotomy. This being the case, we may fairly advise a patient to submit to hysterectomy, not only for cervical cancer, but also for malignant disease of the body of the uterus, provided that it has not yet spread too deeply into the surrounding tissues involving glands and other organs. Then again, for that most distressing and exhausting condition of fibroid disease of the uterus, this is the most practical operation that could be undertaken. Various other devices have been proposed, including the bringing on of the menopause by removal of both ovaries. This latter, however, is by no means always successful, nor could it be of any service in those cases which occur after, or even about, the climacteric. Supposing the case to be one in which the menopause would not naturally occur for several years, complete removal of the uterus would not more effectually sterilise the patient than would double oöphorectomy. Granted that hysterectomy can be performed with reasonable safety, it has the advantage here of absolute cure as against only probable cure. In addition to this, the exhausting hæmorrhage is stopped from the moment of the operation, a result which is of some consequence to a woman who has been drained for months or for years prior to her submitting to treatment. Let me here remind you of the fact that, by the present ordinary method of removal of the ovaries, the double removal is not at all infrequently followed by prolapse or retroversion of the uterus, owing to the injuries to its ligaments which seriously interfere with their suspensory action. And this leads me to another class of cases in which we might consider the advisability of hysterectomy, viz.: prolapse of the uterus, a condition quite as distressing, although by no means so dangerous, as fibroid disease. We must, all of us, have patients past middle age whose lives are scarcely worth living from the pain and discomfort of prolapse, which refuses to be amenable to any treatment except the most drastic, and for the relief of which many operations have been suggested and pessaries innumerable have been invented. What could be more satisfactory than removal of the offending organ which has already outlived its usefulness, and yet for some reason does not undergo the regressive changes normal to it?

As to the choice of operations, the nature of the case itself must usually decide the route to be taken and the exact method of its performance. In epithelioma of the cervix with a freely movable uterus not materially enlarged, the vaginal route is practicable and by no means difficult. It has the advantage of leaving no scar on the surface of the body, and this is highly appreciated by the patient herself, while the possibility of stitch abscess and ventral hernia is excluded. You may, of course, claim that this ought to be excluded anyhow under the improved technique of to-day; but there remain many cases in which the abdominal route must be taken, as, for instance, when the uterus is enlarged to any considerable extent, or where there is much fixation of the organ from former attacks of pelvic cellulitis, or peritonitis, or salpingitis. In those cases also in which it is deemed advisable to remove the body only and to leave the cervix in position, the abdominal route is almost a necessity. Then, when a laparotomy is decided upon, there are still two main lines of procedure open to us in the intra-peritoneal or the extra-peritoneal treatment of the stump, or

Digitized by Google

pedicle, in partial hysterectomy. Undoubtedly for speed, when time is of vital importance, the extra-peritoneal stump may be preferred, as it might be in a Cæsarean section where Porro's operation is undertaken; but in all, save a few exceptional cases, experience would lead one to treat the stump intra-peritoneally and absolutely close up the abdominal wound to ensure primary union.

Within a few months I have had under my care five cases of uterine disease in many respects similar to one another, especially by reason of profuse and at times uncontrollable hæmorrhage. In four of these cases the women were reduced to an extremely emaciated condition, and in the fifth case, while the patient was burdened with much flesh, she was exceedingly weak and low from her many and severe losses of blood. Four cases were clearly epithelioma of the cervix, verified by microscopical examination, and were distinguished by prolific granulations, which bled profusely when touched. Indeed, the first thing which drew attention to these cases was the hæmorrhage which invariably followed sexual intercourse, and which became more and more severe as the weeks passed. In all four cases this was not accompanied by any pain beyond, perhaps, some slight tenderness. On examination the cervix was in each case found to be embedded in a crop of soft epitheliomatous tissue. One was far advanced, and the malignant growth extended laterally into the broad ligaments and forward till the wall of the bladder was involved. This patient was informed that her condition was inoperable, and palliative treatment was adopted. Of the other three, one refused to have anything done and the other two elected to submit to operation. The fifth case had a history of repeated attacks of gonorrhœa, which resulted in salpingitis, binding down tubes and ovaries and more or less fixing the body of the uterus itself. There was no epithelioma, but the body of the organ was enlarged and hard. The depth was barely a quarter of an inch more than normal. Considering first the two cases of epithelioma operated upon, in each of these the uterus was removed per vaginam, being freely movable and not enlarged to any appreciable extent. Here the vaginal route allowing the cervix to be clearly seen made it possible to be certain that the whole of the growth was removed by snipping round it, keeping well out in healthy vaginal tissue. The method adopted was practically the same in each case except that in the first, after tying the uterine arteries and separating the uterus from its attachments in the lower half of its extent, the whole organ was inverted by drawing down the fundus posteriorly, tying the ovarian arteries and completing the separation from the fundus towards the cervix. In the second case this inversion was avoided by a simple device. When the lower half of the body of the uterus had been cut clear of its ligaments, I passed a loop of strong tape on a pair of curved forceps behind the uterus and caught the loop with my forefinger passed in front of that organ. This loop over the fundus enabled me to drag down first one corner and then the other, so that the ovarian arteries, tubes, etc., were easily brought into view and tied, and the uterus was thus completely freed without inverting it. This I regard as an immense advantage over the upending of the uterus, for the obvious reason that a cervix with an open os, to say nothing of any malignant growth about it, is a most undesirable thing to drag back into the peritoneal cavity, even for a few minutes, supposing that valuable time has not been occupied in amputating the cervix. All the ligatures were left about three inches long to facilitate removal, and I found the operation much simplified by cutting through the broad ligaments and tying the vessels as they appeared, rather than by tying the ligaments themselves in sections. This latter procedure is not only unnecessary, but it certainly increases the risk of operation, from the extra time occupied, and especially from the fact that such ligatures are much more likely to slip than are those placed directly upon the ends of vessels. Both these cases made excellent and uninterrupted recoveries, and were able to be about the ward well within three weeks. Six months after operation I was able to see them both, and while in one there was no sign whatever of recurrence, in the other there was a granulation as large as the tip of one's little finger. This may or may not have been due to the fact that one of the ligatures on an ovarian artery had been by accident cut short and was probably not removed. The third case of this series was unsuitable for the vaginal route for two reasons: the uterus was too much fixed, and its bulk was too great to allow one room to work easily alongside it in the pelvis. I therefore opened the lower segment of the abdomen slightly to the left of the midline, and in the Trendelenberg position was able to get a good view of the parts down to the floor of the pelvis. I removed the right ovary, but the left was so matted down by adhesions that I thought it wiser to leave it alone. The ovarian and uterine arteries were tied and the uterus cut away from its attachments down to the pelvic floor. It was then divided across at the junction of the body and the cervix, the canal touched with pure carbolic acid, and a fold of peritoneum

Digitized by Google

stitched carefully over the stump. This stump was of the smallest dimensions, having been made by a V-shaped incision allowing the sides to be brought neatly together. The abdominal wound was closed in three layers, linen thread having been used throughout for sutures and ligatures except in the skin, which was sutured with silkworm gut. Here, again, the recovery was uninterrupted, although slow in consequence of the patient having been drained by hæmorrhages every fortnight for more than a year before operation. Four months afterwards I had to remove one of the linen sutures in the aponeurosis of the abdominal wall, as two small sinuses had opened up. The vagina is, of course, quite unaltered, and the cervix projecting into it gives the impression that the uterus is present. The parts are all freely movable, there are no adhesions, and the patient has now no pain on intercourse, a fact which has tended to make her domestic arrangements much more satisfactory. Examination of the uterus after removal showed it to be a case of interstitial fibroid extending over nearly half the body of the organ.

(Read before the Ballarat Branch of the British Medical Association.)

NOTES ON SOME CASES OF PUERPERAL SEPTICÆMIA.

By E. H. Binney, M.B., Ch.M., Sydney.

In over five years of active midwifery practice, chiefly amongst the working classes, I have met with six cases of true puerperal septicæmia. Such cases never appear very interesting at the time, nor does the doctor think of taking exhaustive notes on them or recording the symptoms from day to day. The nurse, too, has her hands generally too full to even keep a proper chart. Accordingly, I have no connected account of the clinical symptoms or any charts to submit to the meeting. I propose, therefore, to do little more than briefly note the cases, their progress and termination in order to offer a few remarks which will be interesting to the general practitioner.

Case I.—Mrs. M., aged 28, a multipara. Previous history of syphilis and recurrent pyosalpingitis, having lived the life of a prostitute for some years, and had had repeated abortions. Delivered naturally of a healthy child. There was trouble with the placenta, considerable hæmorrhage occurring, and it was only partially expressed. Hæmorrhage continued. Placenta was very adherent and diseased, and only removed by means of gentle curetting. The hæmorrhage was arrested, but the patient was left in a blanched and exsanguine condition. Temperature and pulse rose immediately, the highest being 106°, never actually falling to normal. The tongue was moist all the time. The patient was conscious, and took all nourishment well. Rigors occurred daily, sometimes twice daily. Several consultations were held, and re-currettage, with no benefit, performed. The patient ultimately died on the 21st day, becoming unconscious only at the last. The treatment adopted was curettage, washing out the uterus, tonics, stimulants, and full diet. This case was one, I think, of auto-infection, the syphilitic history probably accounting for the difficulty with the placenta, and the resulting hæmorrhage favouring sepsis, the exciting cause of which was plentiful in old vaginitis and salpingitis.

Case II.—Mrs. R., aged 40, primipara. Delivered with forceps of healthy child, after delayed labour. There was some contusion of parts, but no laceration of perinæum. The placenta appeared perfect, and was expressed in reasonable time. No hæmorrhage followed. The patient appeared well until about the tenth day, when she complained of shivering, and incidentally mentioned that she often had had them. The nurse attributed it to the milk. Rigors, sweats, and temperature continued during the next day. Dr. Armstrong saw her with me, and advised exploring uterus under ether. This was done and some débris and placental tissue found after curettage. The uterus was washed out and packed with gauze; next day gauze was removed, and the uterus washed out again, with general improvement. After daily douching, combined with general tonic and supportive treatment, the patient made a good recovery. This was a case where placenta looked perfect on removal, and nothing in the way of hæmorrhage occurred to indicate that anything had been left behind; the normal time was given for third stage, and the membranes followed the placenta up to the terminal filament. Sepsis in this case was introduced by means of the doctor or nurse causing putrefactions in some small quantity of placental débris and absorption from the latter; with care this could have been avoided. I believe that often something is left behind, which, if in a clean uterus, or one not infected afterwards, either is expelled or organises without causing absorption.

Case III.—Mrs. F., aged 22, primipara. A nervous, anæmic girl, senseless in the extreme. Early in labour she "threw up the sponge." Labour advanced slowly, and lastly high forceps operation with difficulty delivered the child.

Digitized by Google

There was considerable traumatism to the passages and, I fear, infection of the parts through this. The placenta was removed with difficulty, apparently whole. Her temperature rose on the third day, when she was curetted and evident placental débris removed. The temperature continued of a remittent type for five weeks; at one time reached 105·6°, with corresponding rise of pulse. The patient became gradually pale, and during her illness had several attacks of obstinate gastro-enteritis; she developed double phlegmasia dolens, chronic cough, and all forebodings of an early departure. Treatment consisted in douching, after washing out uterus, combined with general symptomatic treatment, stimulants, antipyretics, antistreptococcal serum, and rectal injections of saline solution. She ate like a horse all the time, was blissfully unconscious of her serious condition, and wanted to get up every day. The patient gradually recovered, and left the country well; since then I have heard that she is remaining well. This was a case of infection through traumatism necessary for the delivery of the child—either through forceps or hands of doctor or from nurse. All I can say is that the instruments were sterilised, the passage syringed before and after delivery, and the nurse was one of the best-trained midwifery nurses in Sydney. Some placental tissue certainly was in the uterus, but I think it nearly always is.

Cases IV. and V.—These cases were both primiparæ, aged 19 years and 36 years respectively. All went well until the tenth day, when the usual constitutional symptoms of sepsis occurred. In each case curetting was adopted, and placental débris found in uterus. Labour was uneventful. In one case forceps were used, but in each case an apparently normal perfect placenta was removed without any hæmorrhage. In one case recovery followed rapidly; in the other, swelling of legs and great debility were present for a long time.

In one of these cases I protested against the surroundings of the room and the nurse from the outset. In the other I could find no cause, unless it was that the patient had an attack of gastro-enteritis just before labour began, and sepsis may have arisen from dejecta.

Case VI.—Mrs. B., aged 23, primipara, attended by nurse of well-known septic properties. Labour was prolonged. I saw her four and a-half hours after and she appeared blanched, with quick pulse, the uterus being distended with clot; she had previously passed two or three large clots. Pressure and kneading for some little time after stopped hæmorrhage, and with instructions to douche with hot fluid and keep on kneading should any hæmorrhage recur, I left. There was a good deal of contusion of parts and laceration of perinæum; not a suitable case for suturing. I saw her each morning, when she appeared well, until the fourth morning, when she complained of having passed an uncomfortable night, had shivering attack, retention of urine, and on examination I found the pulse 120 and temperature 103°. I then made my first p.v. examination. The perineal laceration appeared sloughy, the cervix was lacerated and ragged, and on introducing finger and then curette into uterus some little decidua was removed. I thoroughly washed out uterus with sterile water and cleansed vagina with lysol. From information then received I disapproved of the nurse's dealing with the case, and had her dismissed, and introduced a trained obstetric nurse. The patient's symptoms did not improve; temperature rose to 105° and pulse to 140; the tongue began to get dry. A consultation was held and thorough exploration of uterus under anæsthetic recommended. This was done on the fifth day. A considerable amount of placental tissue was found on the anterior wall and curetted away. There was considerable hæmorrhage, but the uterus contracted down well. After irrigating cavity well the vagina was lightly plugged and patient put to bed. That night temperature was 101°, and patient slept a little. In the morning of the sixth day temperature was 105° and pulse uncountable, mouth and tongue having become drier. The temperature was brought down at intervals during the day, never below 103°. On eighth day, having passed bad night, temperature was 103°, pulse 160. Vomiting set in and case went on from bad to worse, dying on the ninth day with all the symptoms of profound toxæmia. I have since found that the nurse in this case attended fatal case of puerperal fever at the same time.

This was a case of infection from double source, absorption having taken place through uterine circulation from infected placental débris and through lymphatics from lacerated cervix and vagina. I think sepsis was introduced during delivery, showing itself a few days later.

The treatment was the usual one—thorough exploration and curettage of uterus on the incidence of untoward symptoms, followed by douching, combined with general antipyretic, tonic and nutritive measures.

It might here be mentioned that the practice of visiting the patients daily in the morning, as is the custom with most general practitioners, is one liable to lead the doctor into great error, especially if he has to depend on information of unskilled observers as to what has transpired

Digitized by Google

during the night. When no temperature chart is kept, the doctor should call night and morning alternately, as he will then recognise the symptoms indicating sepsis under these circumstances earlier than he generally does.

Clinical Remarks.—Puerperal sepsis almost invariably arises from germs introduced before, during and after delivery by the hands or instruments of nurse or doctor. The chief predisposing causes are (1) placental remains causing hæmorrhage and subinvolution, and (2) laceration of cervix uteri or vaginal walls—both forming a suitable nidus for growth of organisms. In the entire absence of the exciting causes, the predisposing causes may exist without sepsis occurring. The attendant doctor or nurse by preventing the exciting causes will bring the patient through clear of sepsis, even if traumatism has occurred and uterus is not involuted. I firmly believe that in many cases the uterus may contain placental tissue after third stage of labour for days which, if the parts are aseptic, will either be extruded with proper involution of the uterus or may become organised, leaving nothing but subinvolution behind, the whole taking place without any constitutional symptoms of septic poisoning. All this depends on proper after treatment, directed by the doctor, and carried out by a properly trained nurse who has mastered her aseptic technique, and has learned how to encourage involution of the uterus, to recognise abnormal hæmorrhage, and to use the catheter. The use of the clinical thermometer and recording of the pulse will tell her when aseptic measures adopted are failing, and will give her warning of sepsis at a time when it was impossible for the doctor to recognise it.

Treatment can be summed up in a few words: it is to be preventive and remedial.

Preventive.—The efficient management of labour, particularly the third stage. After delivery, attention must be directed to securing proper uterine subinvolution by recognising and controlling abnormal hæmorrhage, kneading the uterus, and emptying the bladder at suitable intervals; all this to be combined with thorough asepsis.

Remedial Measures. — A continuation of aseptic measures already adopted, vaginal and uterine aseptic and antiseptic douching, thorough exploration of uterus, if necessary, under an anæsthetic, and removal of any retained products, either by finger irrigation or curette. The particular method employed in effecting this is generally a matter of personal choice. Some are more accustomed to the curette, others prefer the finger. Other treatment is symptomatic, tonic stimulant, and antipyretic. The use of antistreptococcal serum has not, in my experience, done any good.

General Remarks.—This paper, as you see, is no record of a brilliant series of surgical achievements, and is accordingly uninteresting to many of the members, but it will serve to remind members of the comparatively frequent occurrence of fatal results which are preventible. I propose, therefore, to make a few general remarks under three headings: (1) Nurse, (2) Doctor, (3) Public.

(1) *The Nurse.*—No case of midwifery is free from risk unless attended by a properly trained obstetric nurse who thoroughly understands surgical cleanliness. The nurses trained at the Women's Hospital and other institutions are unconsciously doing a work of life-saving, as without their existence puerperal sepsis would be far more frequent. The worthy old ladies who in past times have acted as nurses, kind, motherly, and self-sacrificing as they are, are totally unfit to do what is needed in these cases: they regard all trouble at an end when the third stage of labour is over, put on a binder, and then perhaps send for the doctor to show how smart they have been. They are unable to use the catheter, leaving often a full bladder to prevent the womb contracting; cannot use a thermometer or take a pulse, to guide the doctor on his morning round as to what has occurred during the night; and, above all, know nothing of asepsis.

(2). *The Doctor.*—His first duty is to recommend and insist on having a trained nurse when engaged for a midwifery case. If, as occurs in many cases, he has not been interviewed beforehand, when he is called to the case he should enter his protest against the nurse in charge, and, if possible, have a suitable one installed. This is practicable. The patient may object. Then the doctor has the choice of leaving or of doing his best, but taking no responsibility as to after consequences. We all know how often this is done. All of us, after a little bitter experience, are inclined to do so. What happens is this: The junior or struggling practitioner has a call (a welcome call, perhaps, in these bad times) by a nurse to a midwifery case. He applies the forceps, delivers the woman, fixes her up, and comes home. Perhaps he has been rewarded with a fee. The nurse probably promises to send for him again, and he, in turn, as "one good turn deserves another," recommends her to one of his cases, or she is mentioned to him by one of his patients, and he approves of her, and, perhaps, gives her a letter, and calls her a competent nurse. The doctor has been under an obligation, and retains that by recommendation, which may have a bad and, perhaps,

Digitized by Google

alas! fatal consequence. She still further strives to please the doctor by not calling him during the night, a habit pleasant in a way, and tempting in cases of cheap midwifery, but risky in the extreme. We all admire the nurse who knows when to send, *e.g.*, when the head is on the perinæum. She may be a good or bad obstetric nurse, but if she helps us in this little particular should we reward her by recommending her in order to save us trouble at the risk of our patients' lives? A doctor sometimes is tempted to recommend a nurse, washerwoman, or anybody who might charge a low fee in order to make his own larger or more secure. This is all bad education for the public. It makes the nurse's services appear unimportant, whereas I must submit here that they are more important in the majority of cases than the doctor's. I am presuming that all doctors are aseptic, *i.e.*, they sterilise everything of their own with which they touch, and everything of the patient's that they are likely to touch. If they do and yet act as I have described in relation to nurses, then there is no consistency in their asepsis. Speaking briefly, the doctor must wage war against any attendant in a lying-in case who has not had a proper training in surgical cleanliness.

(3) *The Public.*—In the majority of cases, particularly amongst the working classes, the possible serious outcome of lying-in cases is not understood by the public. The provision made for the accouchement, which is not an emergency, is altogether inadequate; the amount that the event is likely to cost is not estimated highly enough, and ideas of economy or want of thrift beforehand cause cheap, and consequently bad, attendance to be employed. The patients generally first consult the neighbours; this is noted in all other branches of medicine. I think, however, midwifery is a more savoury and enticing subject for gutter gossip amongst the lower classes of our patients. The neighbours offer suggestions and make recommendations; some neighbours probably offer personal assistance, as they have had many children themselves and have been in the room when others were born. If the patient happens to belong to a lodge, this neighbour's offers are accepted, the lodge doctor engaged without seeing the patient. She thinks she is all right as she has engaged the doctor—in fact, she did not want any nurse if the doctor was engaged, and the "woman next door" would call in every morning. Others prefer their mother, who is not a nurse, but always attends on her own family. Those more fastidious, or perhaps a little better off, employ a midwife, and feel they have done the right thing. The untrained or careless midwife is worse than the casual neighbour or the washerwoman, as she is likely to have been more in contact with sepsis; yet these women are armed with letters from doctors, and can name dozens who recommend them and with whom they work. In short, the public consults anybody or everybody about this important event before the doctors. They do not believe in the trained nurse, and I am sorry to say they often find doctors echoing their sentiments. They are afraid of the expense. They rejoice at the cheap thing they get in a £1 1s lodge doctor, and think they can with safety still further economise and get a cheap nurse. They hope for everything to go right, and if it does in their case they think it will in every other; so they tell the neighbours how they have managed, and they in ignorance do the same until taught better by a bitter lesson in the form of a septic poisoning, probably fatal. No parent should consider that a forthcoming accouchement in his home is likely to cost much under £10 10s; poorer patients should come under lying-in hospital indoor or outdoor treatment. The public's duty to itself is to support lying-in institutions, and its right is to have proper means of discriminating when employing a nurse. This will serve alike the poor and the ignorant.

The proposed new women's hospital, together with the Australian Trained Nurses' Association, through its obstetric register, are two institutions to which we look for our future help in this matter; and before closing, while mentioning the Women's Hospital of Sydney, I note that at the present time there is little or no indoor accommodation in or around Sydney for septic cases connected with the puerperal state, in many of which cases prompt and efficient treatment means life or death.

(Read before the New South Wales Branch of the British Medical Association.)

GANGRENE OF THE KIDNEY.

By R. E. Weigall, M.B. (Melb.), Elsternwick, Victoria.

On Thursday, February 26th, 1903, I was called to see a young married woman, aged 23 years, who had been suddenly attacked with acute and sickening pain in the region of the right kidney, extending down the right leg, and followed, one hour after the onset of pain, by a smart hæmaturia. While at rest in bed she was free from pain, with temperature 100° and pulse 90; the right kidney was very tender on palpation, and any movement caused pain.

The next day the urine was blood-stained, but there were no evidences of fresh hæmorrhage

Digitized by Google

Temperature normal, pulse 70. Kidney very tender, and pain occurred on any movement.

In the evening, 28 hours after onset of symptoms, there was a severe rigor, temperature rising to 104·6°, tongue thickly coated, urine scanty.

The next day I removed her to a private hospital. Temperature 104°, pulse 130, tongue very foul; urine normal, 26 oz. for 24 hours; kidney very tender and apparently filling up. At this time I was of opinion that there was a hydronephrosis, and prepared for operation the following morning.

Just prior to operating I made another examination and found that there was certainly no hydronephrosis, and the temperature was falling. I decided to defer any operation, and asked Mr. O'Hara to see the patient with me. He agreed that it was advisable to wait till there was something more definite to cut down upon.

The following day (the fifth of her illness) the kidney had apparently lost all its functions, the secretion of urine only amounting to 23 oz. daily. There was an absolute loss of any sensation in the kidney, which could be easily grasped and manipulated without any pain at all. The patient was rapidly going down hill, and was prostrated by her illness. Temperature ranging between 103° and 104°. Tongue very dirty, some vomiting, pulse 140° to 160°. I asked Dr. Vance to see the patient with me, and we concluded that we probably had a gangrenous kidney, and decided to remove it. The patient appeared hardly fit for any surgical operation, in fact she was practically moribund. Mr. O'Hara agreed that an effort should be made. Dr. Vance anæsthetised the patient, and with Mr. O'Hara's valuable assistance I cut down on the kidney, and exposed a large loose kidney, completely twisted on its own axis, bruised and absolutely gangrenous, beyond all hope of recovery. The pelvis of the kidney was quite green. I removed the kidney, ligaturing the vessels separately with stout silk, and bringing the ends of the ligature out through the lowest part of the wound. This I did so that I should have no buried ligatures, and the almost certainty of subsequent trouble. The ligatures came away about the eighth day.

From the hour of the operation the patient began to rally. The temperature before morning reached the normal line, and the pulse was 80. Enemata of normal saline every 1½ hours were well retained, and urine was secreted freely. In four days the secretion reached 52 oz., and the general conditions were excellent. She has made a perfect recovery, and has no trouble with the wound, and has gained weight. My excuse for reporting this case is that I look upon the condition as very unusual and difficult of diagnosis till very serious symptoms have developed.

The case looked like one of hydronephrosis from a renal calculus having been disturbed. The apparent hydronephrosis was simulated by distension of the colon through a local paresis, but the disappearance of the tumour was not followed by any excessive flow of urine.

The total absence of pain on palpation, with the aggravation of the general symptoms of septic exhaustion, suggested the gangrene. I might add the patient was standing, watering her garden, holding a hose, when one of her children jumped straddle-legs on to her hips and struck his knee into the right kidney. It was this that inverted the kidney, which was already loose.

(Read before the Victorian Branch of the British Medical Association.)

A CASE OF WIDESPREAD INTERSTITIAL MYOSITIS IN A CHILD.

By W. F. Litchfield, M.B., Honorary Physician to Out-patients and to the Diphtheria Ward, Hospital for Sick Children, Sydney.

The patient is a female child, age $4\frac{1}{12}$ years. She is complaining of stiffness of the joints. The trouble started 18 months ago in the ankles, stiffness of the knees, wrists and elbows, followed in uncertain order. There was never much pain, but the complaint has become steadily worse. There were no previous illnesses. The father and mother are alive and well, the first child is alive and healthy, the second child is the patient, then followed three miscarriages, and the baby, age four months, has snuffles well marked.

At first sight the disease looks like chronic osteo-arthritis. The fingers are bent on the palm. The hand is flexed on the forearm, there is flexion and limitation of movement at the elbow, knee and ankle, while all the joints stand out prominently. On looking closely, however, no definite enlargement of the joints can be made out, but there is a distinct and peculiar hardness of the muscles, and a corresponding tautness of the tendons in all four limbs. A film of the child's blood showed a great percentage increase in the eosinophile leucocytes. This eosinophilia, together with the hard condition of the muscles, suggested the possibility of trichinosis. To determine this point, Dr. Clubbe excised a small piece of muscle from the lower end of the left gastrocnemius. No trichinæ were seen. Subsequently, however,

Digitized by Google

the microscope revealed a distinct interstitial myositis. This was most marked near the muscle sheath, and consisted of abundant round celled infiltration, with thinning and loss of structure of the muscle fibres, and new fibrous tissue formation. These facts make it appear that there is a widespread interstitial myositis present in the case. The muscles showing abnormal tenseness are the small muscles of the hand and feet, and all the muscles of the forearm, arm, leg, and thigh. The muscles of the neck, back, and abdomen are apparently free. Another feature in the case is the tenseness of the skin and subcutaneous tissue in the arms and legs, it being impossible to pinch the skin up or roll it over the muscles.

I gather from Hyde and Montgomery's book on "Syphilis" and Quain's "Dictionary of Medicine" that a diffuse myositis, in some cases leading to contracture, may occur in syphilis. The family history suggests that disease as the causal in this case. During the last two weeks the child has been taking 2½ grains of potassium iod. three times a day, and already there seems to be some improvement in her condition. The muscles are less firm, and the movements are freer.

(Read before the New South Wales Branch of the British Medical Association.)

CLINICAL AND PATHOLOGICAL NOTES.

A PESSARY FOR PROCIDENTIA RECTI.

FOURTEEN years ago a man named R.L. was operated upon for fistula in ano. Ever since he has had difficulty in controlling his fæcal evacuations and any exertion would produce a certain amount of prolapse of the bowel, so that he was almost incapacitated from following his usual occupation of a mason. I advised surgical interference, but he declined; so I told him to try a plug. I lost sight of him for some years, but last week he came to consult me for some minor ailment, when I asked him about his old trouble. He informed me he was not troubled with it at all, as he was able to keep the bowel up, and could do a day's work with any of his mates. He used a plug of his own device which acted perfectly. He had tried several different shapes, until by moulding, filing and polishing he had succeeded in fashioning an article, a cast of which I exhibit this evening.

I thought the case was of sufficient interest to bring under your notice, as it is the first of its kind that has come under my notice. It is not a new procedure, for Henry Smith, in Holmes' System, says: "Great relief may be obtained by the use of a pessary or spring-pad"; and Erichsen remarks: "Olive-shaped pewter pessaries are occasionally employed with the view of preventing the protrusion"; but I have never seen them of any service, the sphincter being usually too relaxed to keep them up and their pressure appearing to excite irritation. The pessary is pear-shaped, with the larger end rather flattened; it is 1⅜ in. long, ⅞ in. across, the thickest part tapering down to ¼ in.; there is a hole through the centre, through which is passed a piece of string; this is attached to a ring to aid extraction. The material is vulcanite. The patient applies some vaseline and then inserts the larger end upwards.

H. SWIFT,
Adelaide. M.D. (Cantab.)

UNUSUAL CAUSE OF APPENDICITIS.

IN operating on a case recently for recurrent appendicitis, I was struck by the small amount of trouble visible in the appendix.

He had suffered from these attacks, and was sent in by Dr. Hocken, of West Wallsend. There was nothing special to be noted in the operation, but in laying open the appendix after removal I found a small fæcal concretion, in the centre of which, with the ends projecting, was the bristle of a tooth-brush. We often find curious things in this region, but this appears worthy of record.

JOSEPH L. BEESTON,
Newcastle. L.R.C.S., L.K.Q.C.P. (Irel.)

HÆMORRHAGE IN THE NEWLY BORN.

ON April, 1903, Mrs. F. was delivered of a living female child, which was born just before my arrival; the nurse neglecting to send sooner, as there had been already two "false alarms" a fortnight and a week before respectively. There was pretty sharp post partum hæmorrhage. Child healthy apparently, and about usual weight. The next day the child was jaundiced. Three days afterwards was informed by nurse that "three napkins had been soaked with blood during the night;" on examination the child was found to have slight oozing from the vagina. The motions were still black, though normal in consistence; the water was a deep yellow and stained the napkins. Slight oozing continued from vagina. Two days later a little difficulty with the cord was found. It was not separating well, and

Digitized by Google

was sticking to the cloth by a clot. On eighth day I was informed, through telephone, that the "navel had broken, and the nurse could not stop bleeding." On arrival, I found that child's clothing (night) had been saturated during the night, also a large patch of bed soaked. The child was looking very ill and collapsed, very jaundiced, with bluish lips and almost pulseless. The cord had not separated, and there was a general oozing, which was stopped by hot water. No definite bleeding point could be found; local astringents with a graduated compress applied, and calcium chloride in ½gr. doses given every four hours. Child seemed to rally during the morning, taking breast well and sleeping. Four hours after the bleeding commenced again, and child died that afternoon. The motions had been black (melæna) all the time. The nurse also stated that an isolated spot of blood on the sheet had come from child's mouth after feeding the night before. There were also two large hæmorrhagic patches on inner sides of both upper arms.

This was the third confinement: the first resulted in a still-born child, and the second child died in 24 hours from "jaundice." There was no history of hæmophilia in either side, nor, as far as I could learn, of any specific trouble. The mother at the present time is far from well, being still very anæmic.

EDITH URE,
Brisbane. M.B., Ch.M. (Syd.)

REVIEWS AND NOTICES OF BOOKS.

WHEELER'S MEDICINE AND THERAPEUTICS. Second edition. Revised and enlarged by W. R. Jack, B.Sc., M.D., assistant to the Professor of Practice of Medicine, Glasgow University, etc. Edinburgh: E. & S. Livingstone. 1903. Price, 8s.

Dr. Wheeler was induced to publish the first edition of this small work as a means of assisting the student to digest the main features of the various diseases in the most concise manner at the time he is engaged in clinical work, thereby enabling him to verify at the bedside the statements he has read; and further to enable the practitioner to see at a glance the principal points of each disease, which he can elaborate by his experience. We think he succeeded well in this object, and has produced a handy and useful guide to work in the hospital wards. Dr. Jack in this edition has made some alterations, rendered necessary by the progress in pathology and medicine in recent years, and has incorporated in this edition some new chapters on the infectious diseases, such as plague, erysipelas, influenza, etc. Each disease is treated very briefly from the points of view of etiology, symptoms, pathology, diagnosis and treatment. In the chapters on diseases of the heart and lungs, the discussion of the physical signs is based upon Dr. John Wyllie's notes, and these form a valuable introduction to the study of physical signs. Necessarily in a small work of this kind there is no room for discussion of abstract questions. The whole work is thoroughly practical, and the information contained therein reliable.

G.E.R.

THE PRACTITIONER'S GUIDE. By J. Walter Carr, M.D. (Lond.), F.R.C.P.; T. Pickering Pick, F.R.C.S.; Alban H. G. Doran, F.R.C.S.; and Andrew Duncan, M.D., B.S. (Lond.), F.R.C.S., M.R.C.P. London: Longmans & Co. Price, 24s net.

The authors assure us in their preface that this "book must not be regarded in any way as a complete description of the many diseases and injuries to which reference is made."

Books of this kind have always that drawback, and although they may be "as far as possible what their title suggests," there is always that feeling of something untold, something about which there is still need for more *guidance*. Any one of the four authors, each in his own particular field, could have given us a book in every way complete; but, no doubt, in the case of the volume under review, they felt bound by want of space, and a desire to keep the book within as small a limit as possible, to leave many things unsaid.

However, as *guides* go, it is a good one, and the practitioner so circumstanced as to be limited to a pack-horse, or an already overcrowded buggy, will certainly find in it a help to diagnosis and treatment. Gynæcology has taken up a large share—perhaps, more than its fair share—of the contents; but Mr. Alban H. G. Doran is responsible for it, and consequently most of it is good reading. We cannot, however, agree with all that is said, *e.g.*, "hysteropexy," or hysterorrhaphy, is perhaps the best operation for extreme retroflexion (we presume he means uncomplicated retroflexion). Nor do we like the words "throw up" as a description of a vaginal douche (page 1018). To mention operations by name, and then dismiss them merely with the remark that they are "not without danger," or "not absolutely without danger," does not seem to convey much *guidance* to the "busy practitioner."

In other departments, also, one finds (as in the description of removal of adenoids of naso-pharynx) points mentioned which seem to be unnecessary. Do many nose and throat specialists have the tongue drawn out of the mouth as a preliminary to the removal of this form of growth? We have seen leading men in various parts of the world remove adenoids, but never yet have we seen the tongue drawn forward.

In the medical articles there is more satisfaction in the reading, and all are fairly well up to date; but here, too, want of space has told its tale.

Amongst tropical diseases are some excellent articles, which will well repay the time spent on their perusal; but the fault of the book now affects us, and our space will not permit of a more extended notice.

The printing is clear and comforting to the eye, and the publishers are to be congratulated on the manner in which they have done their work.

H.C.T.Y.

A FEW ITEMS TAKEN FROM BRUCK'S REVISED PRICE LIST FOR NOVEMBER, 1903:—Potain's Aspirators, with 2 trocars and canulas, stop cock, 2 plungers, and 3 needles, in aseptic metal case, with graduated bottle, £2. Laryngoscopes, with large head mirror (4 in. diameter), with head band or spectacle frame, throat mirrors, etc., in case, from £1 upwards. Brunton's Aurocopes, with reflector and 3 ear specula, superior, silver plated, in case, 15s. Sims' 3-Bladed Uterine Dilators, screw action, 25s. Sims' Double-ended Duck-bill Vaginal Speculum, plated, 5s 6d. Binaural Stethoscopes, Snoften's, plated, 5s 6d; with folding spring, 6s 6d. Tonsil Guillotines, Matthieu's, 17s 6d; Mackenzie's, with reversible handles, 24s. Folding Chloroform Masks, Esmarch's, or Schimmelbusch's, 3s 6d. Clover's Ether Inhalers, complete, in case, 45s.—L. BRUCK, Direct Importer, Sydney.—[*Advt.*]

Digitized by Google

THE AUSTRALASIAN
MEDICAL GAZETTE.

SYDNEY, 20TH NOVEMBER, 1903.

THE MECHANISM OF THE PAROXYSMAL NEUROSES.

We have recently published a series of articles on the mechanism of the paroxysmal neuroses by Dr. HARE, of Brisbane, in which he seeks to establish the pathology of migraine, asthma, epilepsy, gout, pyrexia, etc., upon a common basis of vaso-motor disturbance. While there is much to be said in favour of his views, and while clinical facts can be well explained upon this hypothesis, we are unable to accept his theories as being adequate to explain all the phenomena presented by different cases of these diseases. With regard to migraine, we are disposed to agree with Dr. HARE that all the symptoms of this condition can be explained most satisfactorily upon a vaso-motor hypothesis. Two facts to which he has not specifically referred in this connection tend still further to support this view. The first is the alteration in the secretion of urine either before, during, or after the paroxysm, pointing to a variation in the general blood pressure. The second fact is the spontaneous rapid cessation of the pain at times, which can only be explained by a rapid decrease in the intracranial vascular tension. It seems, however, probable that the physical condition in the brain in an attack of migraine is one allied to angio-neurotic œdema, rather than a simple vaso-dilation, that is, a vaso-dilation plus exudation.

We agree that the phenomena of spasmodic asthma are better explained upon the theory of a vaso-dilation of the mucous membrane of the bronchial tubes than of a spasm of the muscle fibres of those structures. With regard to epilepsy, while there is much force in the arguments adduced by Dr. HARE to explain the phenomena of the epileptic fit, we do not consider this explanation adequate for all cases of so-called idiopathic epilepsy. There is much evidence in favour of the view that epileptic fits are in many cases manifestations or symptoms of a degenerating cerebral cortex. It is true that in a large number of cases patients suffer from epileptic fits for years, then the attacks cease, and the patients are apparently none the worse for them. In others, however, the continuance of the attacks is accompanied by a progressive dementia, a condition which points unmistakably to a degeneration of the nerve elements of the cerebral cortex. Again, we know that some patients suffer from so-called "psychical equivalents" of the epileptic fits; and the automatic though apparently purposive actions of epileptics, without the occurrence of any actual convulsive attack, can, we think, hardly be explained upon a vaso-motor hypothesis. Moreover, the attacks of petit mal, which may recur at very frequent intervals during the day, can hardly be ascribed to momentary inhibition of the heart due to a rise in the general blood pressure. We submit that, while the epileptic convulsion may be associated with some vaso-motor disturbance, we must take cognisance of all these facts, and not isolate the mere phenomena of the fit and correlate them with those of an attack of migraine. Dr. HARE also omits to explain how the bromides act so beneficially in a large number of cases of idiopathic epilepsy, although he refers to the use of belladonna, advocated by TROUSSEAU, and asserts that its beneficial action is clearly due to the fact that this drug paralyses the influence of the vagus over the heart, thus diminishing the sensibility of that organ to changes of pressure. If this action of belladonna is so definitely beneficial, how is it that it fails to do any good in a large number of cases? The experience of most modern physicians is that no drugs exert a more certainly

Digitized by Google

beneficial action in idiopathic epilepsy than the bromides of the alkalies, and the use of belladonna, at any rate by itself, has been practically abandoned.

As regards gout, beyond making the statement that it is a recurrent pyrexia, and may alternate with the other paroxysmal neuroses, Dr. HARE does not show how the phenomena of this disease can be explained on a vaso-motor hypothesis. That there is a close relationship between gout and these other diseases, we fully admit; but we are disposed to regard the phenomena of these neuroses as manifestations of some defect in the metabolism of the body, which leads to the formation of some poisonous substances: in acute gout, to the deposit of urate of soda in the joints; in migraine, as well as in the other paroxysmal neuroses, to the development of some toxins, which very probably produce vaso-motor disturbance. In favour of this view is the fact that between the attacks of epilepsy, the blood becomes progressively less alkaline, and only as the attack passes off does the blood regain its normal degree of alkalinity. The beneficial influence of the alkaline bromides is ascribed by some to their maintaining the alkalinity of the blood, and thus, possibly, steadying the vaso-motor control.

Dr. HARE's concluding remarks and suggestions as to the use of nitrite of amyl in neuralgias, and also as a means of checking hæmorrhages, are worthy of careful consideration and practical application.

THE INCREASE IN INSANITY.

FROM the reports of the Lunacy Departments in the different States of this Commonwealth we learn that Australia, like other civilised communities, is suffering from a steady increase in the number of insane persons annually admitted to the hospitals for the insane. In New South Wales, according to Dr. ERIC SINCLAIR'S report, the increase for last year was considerably above the average for the last 20 years, and the proportion of insane to the general population is now 1 to 484, which is nearly double what it was in 1883. This shows not only a large increase in the total number of insane persons under official cognisance, but a greatly increased ratio of insane to sane persons in the community.

If we turn to the causes assigned, we find that intemperance in alcoholic drinks is credited with inducing insanity in a larger proportion of cases than any other one cause, but we have always to bear in mind that there often lies behind the alcoholism some other cause or causes. The man who tries to drown his worries in business, or his losses from the drought and other causes, by indulgence in alcoholic drink, may become insane because of the stress and strain of life rather than from his alcoholism, and yet the latter be assigned as the immediate cause of the mental failure.

There seems little doubt, as has been ably expressed by Dr. ROBERT JONES in his address at the Swansea meeting of the British Medical Association, that the increasing strain and stress of existence in the poorer classes in the large cities, and the pressure of business cares in these days of keen competition, are the main causes of the increasing amount of insanity, which is undoubtedly occurring each year in all civilised countries. This increase demands increasing accommodation in the hospitals for the insane, and in this State the question of providing the necessary accommodation has now become a really urgent one. Dr. SINCLAIR points out the urgent need for the new hospital at Orange, where a site has been prepared and all that is needed is the preparation of detailed plans and the money. There is also pressing need for additions at some of the older institutions to enable the department to treat acute cases of insanity on modern lines. Dr. HENRY, of Grafton, in a recent letter to the daily newspapers, has pointed out the difficulties under which the residents of the northern rivers labour in regard to their access to these institutions, and urges the establishment of a

Digitized by Google

Hospital for the Insane in some central district in the northern part of the State. There is considerable force in Dr. HENRY'S arguments, and it is hoped that his suggestion will meet with some attention from the authorities, as it seems pretty obvious that a great increase in the accommodation for the insane population in this State *must* be made at no distant date if these unfortunate patients are to receive the best treatment.

Meanwhile we must seriously attempt to prevent this steady increase in insanity by enforcing on our patients the necessity of mental rest and physical exercise, with the avoidance of all pernicious habits of intemperance, whether it be in alcohol, venery, or gambling.

THE MONTH.

The Civil Ambulance and Transport Brigade of New South Wales.

AT a special meeting of the general committee of this institution held to consider the financial position, the hon. treasurer reported that the voluntary contributions received were insufficient to maintain the Brigade at its present state of efficiency. It was suggested that while the services of the Brigade be still gratuitously rendered to poor people requiring transport to the public hospitals in cases of accident, first aid, etc., some adequate remuneration should be obtained from the well-to-do who employ the horse ambulance. After careful consideration the committee unanimously resolved that the following scale of charges should be adopted:—Up to two miles from headquarters, £1 1s, and 5s for every subsequent mile, maximum £5 5s, plus all punt, ferry and other incidental expenses. We hope the profession will cordially support the committee in their efforts to render the Brigade self-supporting, and to ensure an efficient ambulance service for the city and suburbs.

Food Adulteration in America.

In view of the strenuous efforts at present being put forth by the Health officials to secure a pure food supply, it is interesting to note how the matter of food adulteration is regarded in America. A Federal law which came into force on July 1st last prohibits the introduction into the United States of any articles of food, the use of which is prohibited in the country of manufacture. During the first three months of the operation of this law, of 205 cargoes of imported food inspected by the bureau, 10 per cent. were condemned. Of these 20 samples, five were Rhine wine, and contained salicylic acid; two white wine, containing sulphuric acid; four olive oil, containing cottonseed oil and being misbranded; three Frankfürter sausages, containing preservatives injurious to the health; four canned vegetables, covered with lead tops in contact with the food; one vinegar, which was misbranded and made of distilled alcohol; and one of colouring matter for foods, in which coal tar dyes were used. An illustration of the severe measures adopted in this country to suppress the adulterator is reported from Seattle (Washington). A girl died there from the use of milk containing formaldehyde. The man who delivered the milk to the dairy, the proprietor of the dairy, and the driver of the delivery waggon have all been arrested on a charge of manslaughter.

The Sanatorium Treatment of Pulmonary Tuberculosis in South Australia.

The last annual report of the James Brown Memorial Trust states that in cash and promises £2000 had been received towards the erection of another wing at Kalyra, the consumptive sanatorium near Belair, so that 12 more patients may be accommodated there, making a total provision of 50 beds. The new building is now being put up, together with a shelter room for male patients. When this work is completed, and money enough remains, the committee may be asked to sanction the building of a cottage with a few single rooms to accommodate any chronic cases of consumption who are not suited for the sanatorium, and whose friends can afford to pay towards their support. During the year there have been 104 applicants, and of these only 16 could be said to be early cases, ones in which less than half of one lung was affected. Twenty-three belonged to the second class, while 65 were advanced cases, in which both lungs were extensively diseased. Of these, 24 were refused as absolutely unsuitable. The Medical Superintendent says: "It speaks well for the sanatorium method of treatment that of all patients in all stages of the disease not more than 5 per cent. fail to respond, at any rate temporarily. It is difficult to estimate the permanent results of the treatment, but it is encouraging to know that of the 15 patients

Digitized by Google

discharged more than a year ago as cured, and whose subsequent history is known, 14 are keeping perfectly well. Only one has had a relapse."

A Sanatorium for Consumptives in West Australia.

It is gratifying to note that the movement for providing the open-air treatment for patients suffering from pulmonary tuberculosis is still active in Australia. Recently a deputation from the West Australian Branch of the British Medical Association asked the Colonial Secretary, Mr. Kingsmill, to provide for the establishment of a sanatorium for consumptives. Mr. Kingsmill has promised to obtain reports upon the subject with the view of making provision on the next year's estimates. We hope the profession in that State will support this effort to secure the establishment of a sanatorium in a suitable locality as soon as possible.

Infected Oysters.

Last month a report was furnished by the N.S.W. Board of Health to the Fisheries Board that the oysters at Long Bay, at the head of Middle Harbour, were infected with typhoid bacilli. This is the first occasion on which a report of this kind has been made here, although sewage matter has done very great injury on the Parramatta River, which has, through that cause, been depleted of oysters. Sewage is emptied into Long Bay, and it has been ascertained that for a distance of 1000 yards along its foreshores the oysters are affected. A special visit of inspection to this spot was paid accordingly by the Fisheries Board to decide upon steps to prevent oysters in the locality being consumed if they were found to be subject to pollution by sewage. It was at once decided to recommend the Governor to issue a proclamation preventing the taking of oysters from the shores of the bay and the foreshores on each side of the entrance to it for a distance of half a mile for a term of three years. This prompt action on the part of the Fisheries Board is highly commendable in view of the great danger which results from the consumption of infected oysters.

Sanitary Hairdressing.

The San Francisco correspondent of the Melbourne *Age* reports that "strict sanitary regulations for the control of barbers have recently been enacted by the New York State Legislature. Any tonsorial artist caught shaving a customer without washing his hands in warm water and soap, or caught using a powder puff or towel on more than one person without its having been washed, will be subject to imprisonment and fine. No alum or other astringent may be used in stick form to stop the flow of blood. Mugs and shaving brushes must be thoroughly washed after use on each person. Combs, razors, clippers and scissors must be thoroughly cleansed by dipping in boiling water or other germ destroyer after every separate use. Other provisions are made for the cleanliness of shops, and every barber must have a certificate procured by an examination before the State board." The health committee of the Melbourne City Council and Health Board have been considering the same question, and have appointed one of its members to go into details with Dr. Gresswell.

Rookwood and Newington Asylums.

The report of the Royal Commission appointed to inquire into the charges of illtreatment of certain patients at the Government asylums at Newington and Rookwood has been laid upon the table of the Legislative Assembly. Charges were made of six cases of cruelty and illtreatment of patients by officers of the institutions, and in all the Commissioner found that there was no foundation in fact for the charges. The Commissioner considered that the representations of the officials for increased accommodation were warranted by the circumstances. He expressed the hope that the erection of suitable and necessary additional accommodation would not be delayed longer. The report proceeds to state that 56 of the inmates of the asylums were recent arrivals in the State. No steps were taken to ascertain the *bona fides* of applicants prior to admission. In conclusion, the Commissioner said that the result of the hearing was that there were no serious abuses or instances of maladministration at Rookwood, and the defects which did exist were those which might not unreasonably be expected in the case of any kindred institution having the care and maintenance of some 1240 inmates. The charges against the Newington institution were not pressed.

Remuneration of Medical Witnesses.

In response to the representations of the Council of the N.S.W. Branch of the British Medical Association the following amended scale of fees payable to medical witnesses came into force on November 1st:—For giving evidence, one guinea for each case (maximum per diem, two guineas); for attendance at court, one guinea for each day actually and necessarily away from his practice.

Digitized by Google

BRITISH MEDICAL ASSOCIATION NEWS.

PROCEEDINGS OF AUSTRALASIAN BRANCHES.

New South Wales.

The regular monthly meeting of the Branch was held on Friday, October 30th, 1903, at the Royal Society's Room; Dr. Brady (president) in the chair. There were 47 members present. The minutes of the previous meeting were read and confirmed.

Letter was read from the medical men of Inverell asking for the co-operation of members of the Branch *re* the lodge practice in that town.

The President announced the election of Dr. Effie Stillwell, and the nomination of Dr. E. Page, of Grafton, and Dr. Ercole, of White Cliffs.

Dr. Binney read some "Notes on Puerperal Sepsis." (See page 512.)

Dr. Brady, on inviting remarks on the paper, said he supposed they were all agreed as to the cause of puerperal septicæmia, and he would suggest that the discussion should be on the advantages, or otherwise, of curetting in these cases, and as to the class of case for which it was suitable, and whether repeated curettings should be performed.

Dr. MacCulloch said that perhaps it might interest members to know that statistics relating to deaths that had occurred from all causes in childbed in the State numbered over 2000, and that one-third were caused by septicæmia during the period 1893-1900. He believed this mortality to be due largely to the employment of untrained midwives. It would tend to diminish this preventible death-rate if nurses were thoroughly trained to understand and practice surgical cleanliness. This can only be done by constant drilling until asepsis becomes automatic. He did not think they would be able to completely eradicate the disease, but by the means indicated the death-rate would be much diminished.

Dr. Worrall said it was no flattery to say Dr. Binney's paper was deserving of commendation. He (the speaker) agreed it was not possible for nurses to satisfactorily carry on midwifery and general nursing together; but he entirely differed from the statement that six months was an insufficient training for a midwifery nurse. Any intelligent woman could easily master in six months all that groundwork of midwifery which properly came within the presence of a midwifery nurse, and the experience of the United Kingdom bore out this statement. He would like to repeat what he had been urging for many years in public and private with regard to two points in midwifery practice, viz., that the improper treatment of the third stage (he meant chiefly the forcible expression of the placenta before it had separated) was responsible for quite as many cases of puerperal infection as the non-observance of aseptic precautions. A few streptococci introduced into the genital tract of a vigorous woman might do no harm, but if this woman were exhausted by hæmorrhage from an improperly conducted third stage, or if her uterus from the same cause contained tissues which should have come away, the result would probably be disastrous. The other point was the importance of noting the extent to which involution had progressed as a guide to prognosis and an indication for treatment. The president had very pertinently asked for an expression of opinion from the meeting as to the advantage of curettage. He (the speaker) was of opinion that it was of great value in septic intoxication or sapræmia, while in septicæmia it was injurious, as were all other forms of local treatment which interfered with nature's attempt to limit the infection. It may be asked, how can one distinguish between the two? It is not always possible to do so, there may be a mixed infection; but one can often do so by the history of the case (whether there has been any trouble in the third stage), by the character of the discharge (profuse and offensive in septic intoxication, scanty and odourless in septicæmia), by careful vaginal and bimanual examination to note any roughness and unevenness of the uterine walls, indicating retained products of conception, or smoothness pointing to septicæmia, and finally, by measuring the height of the fundus; the interference with involution being much greater in septic intoxication than in septicæmia. In any form of puerperal infection, if involution has progressed fairly well the prognosis is favourable. He heartily agreed with Dr. Binney that midwifery practice, while one of the most important, was the worst paid branch of the profession. The remedy lay with the members.

Dr. Palmer, while agreeing with Dr. Binney that in the majority of cases the infection in puerperal septicæmia was conveyed either by the doctor or the nurse, or at any rate by some outside source, said that a number of cases had occurred in which the infection had been received into the system previous to the confinement.

Dr. Crago said he did not intend to discuss the whole question of puerperal septicæmia, but would like to mention one or two facts that had lately come under his notice. Dr. MacCulloch had mentioned the risk that might arise from scarlet fever if trained nurses in general took up midwifery work. He (Dr. Crago) delivered a woman some time ago, and on the following day found that one of her children was suffering from scarlet fever. The child had been for some time in his mother's room, and had been kissing her; still, no interference with a normal puerperium took place. More recently still a woman in the Hospital for Women, Glenmore-road, developed scarlet fever within 24 or 36 hours of her delivery. She was removed to the Coast Hospital without delay, and the fever ran its course without giving rise to any puerperal complications. As regards the difficulty in distinguishing between septic intoxication and septicæmia in the early stages, he mentioned two cases that were under his care a few months ago: both patients were primiparæ. In each the temperature and pulse went up very considerably on the second or third day. When the first of the two was put on the table for curetting and washing out of the uterus, it was seen that the torn cervix presented an almost membranous appearance. This was freely curetted, as well as some placental débris from the uterine cavity, and after swabbing with iodine the cavity was packed with iodoform gauze. The temperature and pulse came down to normal within a few hours, and remained so, the patient making an uninterrupted recovery. The other case, which occurred within a few days of the first, presented almost identical symptoms. It was treated in exactly the same way, and although quite as much placental débris was found, very little or no benefit followed the curetting. The pulse kept persistently rapid, and death followed in a few days; the tongue continued moist and the intellect clear to the last

Dr. P. Sydney Jones, senr., as one who had not attended a confinement case for thirty years, desired to ask those gentlemen present who had large experience in obstetric cases whether it was their custom, at the time of being engaged to attend a patient in her confinement, to direct her to herself employ antiseptic douching and washing of the vulva and vagina during the latter weeks of pregnancy. He was aware, of course, that in a large number of cases no opportunity of giving such directions

Digitized by Google

was afforded to the practitioner, he being introduced to the patient only after labour had actually commenced. There were, however, a considerable number, especially amongst the more well-to-do, who engaged their doctor some weeks and perhaps months before the expected confinement, and it appeared to him (Dr. Sydney Jones) that if such directions were given and regularly carried out by the patient they would offer an additional security against sepsis. He believed that the practice was prevalent in England.

Dr. STACY thought that there was some confusion in the minds of some practitioners between saprsemia (septic intoxication), much the more common form of sepsis, and septicæmia, in which the organisms were themselves in the blood. He understood that one case, at least, of Dr. Binney's had recovered; this made it rather doubtful if it was one of septicæmia, as these rarely recovered; if they did, they generally became pyæmic first, that is to say, abscesses were formed throughout the body. A well-marked clinical sign of septicæmia was the pallor, for there is a big destruction of red corpuscles by the organisms in the blood; in fact, one of the lowest red corpusclar counts ever recorded—one of slightly over 500,000 per c.mm.—was made by him in a case of puerperal septicæmia. The organism generally present was the streptococcus, but as there were a number of varieties of the streptococcus, and as they existed in enormous numbers, it was not surprising that the anti-streptococcic serum had done no good.

Dr. GORDON CRAIG thought that efforts should be made to educate the public on the subject. In nine cases out of ten the medical man was called in, and he had no chance of discovering the details of the preparations made beforehand. In such cases the result was more or less a question of luck. The medical man could only do his duty and adopt all antiseptic precautions as far as he was concerned, and influence those nursing the case in the same direction. He believed that it would be only possible by educating the public that there could be permanent improvement in this class of practice, and probably future generations would profit by the efforts now being made to awaken public opinion as to the necessity for greater precautions being used in engaging nursing attendance at such periods.

Dr. MARY BOOTH said a proper appreciation of the importance of the puerperium was a matter of education. If girls in the upper classes of schools were taught the importance of hygiene, and particularly that relating to infants, as is the case in Switzerland, Denmark, and Germany, there would no longer be the demand and supply for the unqualified midwifery nurse. The medical profession could, more than any other, strengthen the hands of education reformers in this matter.

Dr. BINNEY, in reply, said he had introduced the subject with a view to inducing interest in promoting an improvement in the existing state of affairs. He held that legislation should be directed to the safeguarding of the public. They had registration of nurses and a Trained Nurses' Association, movements in the right direction; but still greater discrimination was required, and some further legal enactments were called for. The head of the family should be impressed with the importance of consulting the doctor beforehand as to the nurse to be employed. Nurses should be licensed, just as doctors are. They could not prevent them nursing cases, but they could order it that unlicensed women would be to some extent responsible for their actions when any death or illness could be shown to be directly due to their ignorance or neglect.

Dr. SCOT SKIRVING and Professor WELSH read some "Notes on the Clinical Signs and Pathological Conditions in a Case of Addison's Disease." (See page 493.)

Dr. GLEDDEN was much interested in hearing of the case as one of Addison's disease. The patient had been under his care, and he had made that diagnosis. The patient had much improved after a change to the country.

Dr. CRAGO said some of the members might remember that he showed a case at a Branch meeting some ten years ago (October, 1893), in which both pigmentation and asthenia were very marked symptoms. The woman died about two months afterwards, when Dr. Rennie made a post-mortem examination, and, with difficulty, found the suprarenal bodies, as they had undergone almost complete atrophy. Professor Welsh had informed him that the atrophic form was much less frequent than the tubercular, but that suprarenal extract was much more likely to do good in those cases.

Dr. FLYNN said Dr. Skirving's paper, as usual, had given them food for thought. The satisfactory explanation of all the symptoms of this strange disease was yet far to seek. While they had experimental evidence and clinical data in favour of the view that Addison's disease was related either to an inadequate supply or to an abnormal quality of adrenal secretion, yet adrenal inadequacy did not cover the whole phenomena of the disease. Cases of the disease with intact suprarenal bodies were recorded by Guay, Fowler and others, and, again, the suprarenal bodies might be almost completely destroyed by carcinoma and tubercle, and yet no special symptoms result. Even experimental researches might be appealed to—notably those of Tizzoni on the artificial removal of the suprarenal capsules in rabbits—which lent support to the opinion that the adrenals had no proper function, and were important only from their close relation to the sympathetic. It was improbable that the suprarenal bodies had any direct action on the effete pigments of the blood, whereas the influence of the nervous system on pigmentation, though not proved, was clinically probable, the sympathetic dilating the vessel wall and thus allowing increased transference of pigment by the carrier cells to the epidermis. If the symptoms of Addison's disease were due solely to loss of function on the part of the suprarenal bodies, it seems strange that better results are not obtained from the administration of suprarenal extract. The published results were far from satisfactory as regards ultimate recovery, and in Dr. Skirving's case adrenalin was administered without any beneficial effect. Taking these and other facts into consideration it would be seen that though the adrenal inadequacy theory loomed largely in recent times, it was difficult to eliminate the large part played by the sympathetic and indirectly by the vagus in the symptoms of the disease. And if they reflected on the one hand, that the active principle of suprarenal extract was present only in the medulla and not at all in the cortex, and on the other hand, that the cortex and medulla had a different ancestry, the former being derived from the sexual cords of the primitive kidney, whereas the latter was developed from the sympathetic ganglia, it was easy to realise how, whenever there was any disturbance of the medulla interfering with its internal secretion, there might be a concomitant "primæval sympathy" influencing the sympathetic, and, therefore, he considered that the opinion which regards the symptoms of Addison's disease was due in part to irritation of the sympathetic and in part to adrenal inadequacy as more probable, more in accordance with facts observed and with the community of ancestry of the sympathetic and the suprarenal body than either of the exclusive theories usually offered. The genetic relation of the cortex of the suprarenal bodies and the genito-urinary organs might yet explain many things. As Hertwig observes, it is in this direction physiological research of the future must turn to throw more light on

Digitized by Google

the function of the adrenals. At any rate it was well to bear in mind that a part of the structure of both the ovary and the testicle was a cousin-tissue of the cortical part of the suprarenal gland. This relationship on the part of the ovary had an obvious bearing on the pigmentation of pregnancy. Perhaps they might not be far wrong in summing-up thus: That the constitutional symptoms were to be attributed to a lesion in the medulla, partly by irritation of the sympathetic, partly by defect of the adrenal secretion, and that the bronzing was due to implication of the cortex.

Dr. MACDONALD GILL exhibited the adrenals in a case of Addison's disease, and said that the specimen which he was exhibiting that night came from a child, aged ten, who had been admitted to the Children's Hospital, under his care, on September 29th of this year. The diagnosis of the case was obvious; in addition to the general bronzing of the skin there was such extreme muscular weakness that the child could not sit up, and even the exertion of feeding herself exhausted her. Her pulse was 120, very soft and compressible. There was a history of five weeks' gradual onset, with bronzing and occasional vomiting. She got gradually weaker and weaker, and died on October 7th, eight days after admission. She did not vomit in the hospital till two days before death. It will be seen that the suprarenal glands have been completely transformed into fibro-caseous masses, without a trace of the normal glandular tissue left; histologically, there are numerous typically tubercular giant cells. The only other tubercular focus in the body was an old caseous bronchial gland. No tubercle bacilli were found in the suprarenals, but a very prolonged search for them was not made. There was also a general enlargement of the Peyer's patches and the solitary follicles in the small intestine, apparently not tubercular, as far as anatomical appearances went.

Dr. JAMIESON exhibited some pathological specimens.

Dr. STACY exhibited an anatomical specimen—Kidney with Accessory Renal Artery.

Dr. SAUNDERS exhibited—(1) Skiagram showing a probable Hydatid of the Lung; (2) Photograph showing a congenital displacement of the Kidney.

Dr. HERSCHEL HARRIS exhibited "The Spinthariscope," an instrument designed by Sir Wm. Crookes, showing the scintillations of Radium.

Queensland.

A MEETING of the Branch was held on Friday, November 6, at the School of Arts Hall; Dr. Hopkins (president) in the chair.

Dr. LILIAN COOPER exhibited:—(1) Renal calculus of unusual size and shape obtained from a woman of 66; (2) Very early extra-uterine conception; (3) Abscess of ovary; (4) Fibroid of uterus; (5) Periosteal sarcoma of tibia from a girl of 17; (6) Thyroid adenomata.

The Curator, Dr. C. S. HAWKES, exhibited a large number of pathological specimens collected from his own practice for the Museum, and made a few remarks in relation to the chemical theory of cancer. (*Rogers.*)

The PRESIDENT congratulated Dr. Hawkes on the excellent display of specimens, and in thanking him for his valuable contributions to the Museum, appealed to members generally, and particularly to such as were connected with the hospitals, to assist the Curator in preserving specimens for mounting.

This being the last meeting at which the Curator would be present previous to his visit to England and America, the members adjourned to the library to drink his health and wish him *bon voyage*.

South Australia.

THE usual monthly meeting of this Branch was held at the University on Thursday evening, 29th October, 1903. Present: Dr. Jay (president) and 28 members.

The minutes of the last meeting were taken as read and signed.

Exhibits were shown by Drs. Lendon, Wigg, Johnson, Brummitt, and Reissmann. Dr. W. Anstey Giles also showed: (1) A man with elephantiasis of lower legs; (2) A patient cured by operation of a popliteal aneurism; (3) A patient who had a chondro-sarcoma of femur removed.

Dr. POULTON then continued the adjourned discussion on Dr. Marten's paper on "Gastric Surgery" (published in the last *Australasian Medical Gazette*).

Dr. LENDON said that he had listened with great interest to the papers on "Gastric Surgery," read at the last meeting, and, whilst congratulating the authors upon their distinguished successes, he thought that neither of the writers had laid sufficient stress upon the difficulty in arriving at a precise diagnosis, both anatomical and pathological, upon the necessity for abdominal exploration, and upon the disappointment which frequently attended a laparotomy. For instance, in a case of prolonged dyspepsia, unrelieved by medicinal and dietetic treatment, he was rejoiced on exploration to find the gall-bladder full of calculi, but in a few weeks the patient died, without having experienced the slightest relief, of dementia; post-mortem, the real trouble was found to be pancreatic sclerosis. Again, a few years ago he explored a man of 49 who had lost five stone. Nothing was found to explain his gastric symptoms. Subsequently he gained weight, but the diagnosis has not been cleared up. A Riedel's lobe of the liver explained what appeared to be intrinsic gastric symptoms in a third instance. He would recommend members to read Dr. F. Magarey's graduation thesis on perigastric adhesions. Leaving the plane of the "higher surgery" of excisions and anastomoses, and coming down to that of the minor surgery of the stomach, he could recall three cases of gastrostomy for œsophageal cancer. A man of 63 refused till very late to have anything done. His wife confided in me afterwards that he only consented then because he hoped and believed that he would probably die under the anæsthetic. He died the day after operation quite suddenly, before even the stomach had been opened. A second case survived but 22 days, succumbing to extension of the ulceration into the trachea. The third case had been treated most assiduously by his doctor for dyspepsia merely, although the gullet was almost impervious. He survived seven months, putting on weight and taking in daily, through the fistula, seven to eight pints of fluid nourishment. There was no leakage from the fistula in either case, nor dermatitis of the surrounding skin. The operation can be easily and rapidly performed, and requires but very slight anæsthesia. In a case not operated upon, the patient, a brewer, was under treatment for supposed vomiting, really regurgitation from the gullet. Here the stricture was impermeable.

Dr. TODD said: Members are very much indebted to Drs. Giles and Marten for bringing forward so forcibly the benefits which may result from well-devised operations upon the stomach. Although gastric surgery has made such advances in the last 18 months, it is, so far as its practical application and so far as its general usefulness are concerned, only in its infancy. Although I have only had a few cases myself, I have been concerned as assistant in a good many in the practice of others. What has impressed me most of all in cases of stomach surgery—whether that of chronic ulcer or its results, or of malignant disease—is the comparatively late stage at

Digitized by Google

which cases are willing to submit themselves to operation. I shudder when I think of the number of times I have seen the abdomen opened and unfavourable conditions found. If these cases had been submitted to exploratory laparotomy months before, great relief or even cure might have been possible. What we want, then, on the part of the profession is earlier diagnosis, and prompt and decided action. To make the former absolute is a difficult matter, but we constantly have a strong suspicion of early malignant disease, and an early exploration will decide the question. Mr. Mayo Robson, too, has forcibly pointed out that many deaths are yearly put down to malignant disease of the stomach when really they are due to pyloric stenosis or gastric adhesion with inflammatory thickening. The public, too, requires to be educated up to the fact that cancer of the stomach need not be looked upon as of necessity an absolutely fatal disease if prompt surgical measures are adopted. I do not share the rather pessimistic view expressed by Dr. Poulton as to the doubtful utility of gastro-jejunostomy in inoperable cancer of the pylorus. In the case recorded by Dr. Giles, after this operation the man was completely free from pain; his general condition improved to such an extent that it was decided to remove the cancerous portion of his stomach. This second operation was made infinitely easier by the fact that a preliminary gastro-jejunostomy had been done three weeks before and the inflammatory material round about the cancer had disappeared. Dr. Giles' second case was a typical hour-glass stomach, and operation has given complete relief. On looking at the exposed stomach it was not difficult to understand that medicines could never bring relief in such a case. I hope that the prominence which gastric surgery now holds in the medical mind will produce, as one of its results, earlier diagnosis and earlier surgical treatment. When this comes about I think the statistics of stomach diseases will have to be rewritten.

Drs. W. T. Hayward, H. H. Wigg and others also spoke, and, having apologised for the absence of Dr. Marten, Dr. W. Anstey Giles replied.

Dr. Lendon then read a paper on "Fatal Icterus Neonatorum."

Dr. Brummitt said that he had no recollection of such a case as that recorded by Dr. Lendon. Jaundice in new-born infants was common, and usually unimportant, passing off in a few days; occasionally it was more severe, and in such cases the speaker always looked upon the occurrence of hæmorrhage from any source with apprehension. He recalled six instances in which fatal bleeding had ensued on or before the separation of the umbilical cord in jaundiced babies. The most recent, 18 months ago, proved fatal, in spite of styptics, adrenalin chloride, and acupressure; this surgical procedure appeared for a time to be successful, but bleeding came on again and completed the case. The case next preceding pursued a somewhat similar course. The four other cases occurred in the same family, making a very remarkable series. A healthy woman, with excellent personal and family history, gave birth to an apparently healthy child; he soon became jaundiced, and continued so in spite of hyd. c. cret. On the separation of the cord, profuse hæmorrhage came on; it was checked for a time, but recurred and proved fatal. A similar course was pursued with the second, third and fourth child, after which the mother left the district, and subsequent history is unknown. In that case it was possible almost absolutely to exclude syphilis. These six cases had led the speaker to consider marked jaundice in babies as a reason for vigilant watchfulness and for treatment which he carried out with mercury and chalk.

Several other members discussed the paper.

Victoria.

A meeting of the Council of the Victorian Branch of the British Medical Association was held on October 29th. Dr. Greswell (the president) and Drs. Weigall, Vance, Henry, Neild and Bryant were present.

The question of the election of medical officers to hospitals was discussed, and it was stated that frequently sums collected by churches, corporations, and football associations were donated to hospitals only on condition that each £1 given should carry one vote with it, which could be used for any election that might be taking place in connection with the hospital receiving the donation. Notice was also taken of the bad effect paying wards in public hospitals had upon the public, and that they were a serious loss to the medical practitioner in many cases; and it was agreed that more care should be taken in ascertaining the financial position of patients before they were admitted to public hospitals.

Dr. Henry proposed that the Council should express concurrence in the views of the Sydney Council of the British Medical Association over the proposed British Medical Association Congress. Dr. Bryant seconded this motion, and it was carried unanimously. Drs. Henry and Bryant were appointed to watch the progress of the above suggestion.

Dr. Greswell intimated that he would hold a reception at the annual meeting.

REPORTS OF SOCIETIES.

THE SYDNEY AND SUBURBAN PROVIDENT MEDICAL ASSOCIATION.

The annual meeting was held at 121 Bathurst-street on October 27th, 1903. Dr. Worrall (the president) took the chair, and there was a good attendance of the active and consulting staffs. The hon. secretary's report on the working of the Association for the past 12 months showed that its position had been well maintained in spite of the depression on account of the recent drought. The usual dividend of 17s per member per annum had been paid to the active staff. In moving the adoption of the report the President reminded the members of the active staff of the advisability of recommending those of their patients whose circumstances rendered them eligible for membership to join, as by this means alone the Association could increase its scope, as all canvassing was strictly prohibited.

The hon. treasurer's financial statement showed that £3541 3s 7d had been paid the active staff and chemists during the current year.

In discussing the position of the Association it was pointed out that there had been no extension during the period, and that this was due to there being absolutely no advertising or canvassing, and there being so many medical benefit societies whose claims are persistently advertised, and the city and suburbs continually canvassed by the officers of these societies, and the additional benefits offered the public renders competition very keen.

It was generally agreed that the active staff had the future of the Association entirely in their own hands, and all increase in the roll depended exclusively on the individual efforts of those medical officers, as stated by the president.

WESTERN SUBURBS (SYDNEY) MEDICAL ASSOCIATION.

A general meeting of the Western Medical Association was held at the Petersham Town Hall on Wednesday, November 4th; Dr. Hetherington (the president) in the chair.

Digitized by Google

Dr. BLACKBURN read a short paper entitled "Some Remarks on Combined Cystic Disease of the Liver and Kidneys." Dr. Blackburn dealt more especially with the pathology of the disease, demonstrating by lantern slides the theory that the disease was a degeneration of the normal tissues of the liver and kidneys.

Drs. HETHERINGTON and PERKINS made some remarks, the latter referring to the disease met with in cattle that had come from districts where the Darling pea grows.

Dr. SANDES read a short paper on the "Corpus Luteum," and by means of lantern slides demonstrated its origin from the cells of the Theca Interna of the Graafian follicle. Dr. Sandes also indicated the probable function of the Corpus Luteum in the reproductive economy.

CORRESPONDENCE.

London.

(FROM OUR OWN CORRESPONDENT.)

The Increase of Lunacy—The Lister Institute—Founder's Day at Epsom College—The British Medical Association's Annual Meeting—St. Bartholomew's Hospital.

THE report which the Commissioners of Lunacy have just presented to the Lord Chancellor is not pleasant reading. It points out that whereas less than 50 years ago the proportion of lunatics to sane persons was one to 536, it is now no less than one to 293. Some allowance must be made for the greater diagnostic accuracy of the present day, but the effect of this on the figures given is to a considerable extent counteracted by the greater number of cures obtained in mental diseases now than formerly. Another unsatisfactory feature of the report is the evidence it affords that of late the increase in the number of lunatics has not been constant but steadily progressive.

In the year 1896 a movement was started to perpetuate Jenner's name by some suitable national memorial. It was decided that as the discoverer of vaccination was the great pioneer of preventive medicine, it would be fitting that the proposed memorial should be associated with the then newly-established British Institute of Preventive Medicine. The sum of money which was raised for the purpose was disappointingly small, and did not suffice for more than the foundation of a scholarship. None the less, the council of the institute, being desirous of honouring the great man's name, resolved to alter their title to that of the Jenner Institute. It subsequently transpired that a commercial firm was already in existence which traded under the name of the Jenner Institute for Calf Lymph, and which had by right of priority a claim to the title of Jenner Institute. Unfortunately the two establishments have been constantly confused with one another, and such inconvenience has arisen that the governing body has been regretfully but unavoidably compelled to again change the name of the institute. The profession and the general public will probably agree with the council that no name, after Jenner's, could more appropriately be identified with their institution than that of Lister, the founder of antiseptic surgery. The name has been chosen against Lord Lister's personal wish, but it is obviously becoming that such an institute should be associated with the name of one who has done so much for the prevention of disease.

On Saturday, the 25th July, the year's work at Epsom College was terminated by the usual distribution of prizes. The occasion was utilised to unveil a handsome memorial window in the chapel to nine students of the college who laid down their lives for Queen and country on the battlefields of South Africa. Subsequent to this ceremony speeches were delivered by the headmaster, Mr. Winston Churchill, M.P., Sir William Church, and others, all of whom bore gratifying testimony to the good work which was being carried on, and to the continued prosperity of the school. Its close association with the profession gives to Epsom College a special interest for medical practitioners, many more of whom would doubtless send their sons there if they were fully acquainted with the many prizes it offers in the way of scholarships and bursaries, in addition to the ordinary advantages of a high-class public school education.

The seventy-first annual session of the British Medical Association commenced at Swansea on July 28th. The conference sermon was preached in the parish church by the Bishop of St. David's. Subsequently the first general meeting was held, the chair being occupied by Mr. Walter Whitehead, the retiring president. The new president, Dr. T. D. Griffiths, of Swansea, was duly introduced, and expressed his pleasure that the first official duty which fell to his lot was to announce that the Prince of Wales had graciously intimated his acceptance of the honorary membership of the association. He therefore moved the election of the Prince, and the motion, having been seconded by Dr. Andrew Clark, was carried unanimously. In the evening Dr. Griffiths delivered his presidential address, and chose for his subject "The Evolution of Antiseptic Surgery and its Influence on the Progress and Advancement of Bacteriology and Therapeutics." In dealing with the influence of antiseptic surgery on bacteriology and therapeutics, he pointed out the way in which existing medical knowledge could best be utilised for the benefit of mankind. He expressed the opinion that the adaptation of modern knowledge to the improvement of the public health had not kept pace with the progress of medicine and surgery. Though the rate of general mortality had decreased in the last 36 years, the diminution was not universally applicable, because the death rate among children under one year had become augmented by nearly 2 per cent. This was due, more or less entirely, to preventible causes, and he believed that even a moderate advance in sanitary law administration would lead to such an improvement that, at the lowest computation, there might be an annual saving of something like 60,000 lives. Such a result in 20 years' time would represent a valuable addition to the assets of the Empire of over a million of population. Though the natural and proper tendency of the day was towards decentralisation and local independence, this had probably gone too far as regarded sanitary matters. Local independence, too, often meant local apathy, the true remedy for which, in the orator's opinion, was the formation of a public health service under the jurisdiction of the President of the Local Government Board. The nucleus for such a service already existed in the medical officers partially employed by various local authorities, and eventually it would undoubtedly become sufficiently important to offer a career tempting enough to attract men of the highest scientific attainments. The extraordinary success of the British Medical Association, whose membership now exceeded 18,000, had brought with it an equivalent potentiality, and one of the ways in which such a power could be efficiently used was in the direction of influencing Parliament and other public bodies in the proper methods of legislation for the amelioration of the national health. The address gives ample food for reflection, because it indicates that the declining death-rate is not altogether what it seems. The increase in infant mortality is, no doubt, due to some extent to the ignorance and carelessness of mothers; but its true cause is more deeply seated, and must be largely ascribed to the weakness of our sanitary administration. The optional character of model rules

Digitized by Google

and regulations in connection with dairy farms and the general listlessness of the public on such topics account for a great deal of the present unsatisfactory state of affairs, and there can be no little doubt that both the law and its administration call for drastic reform. Dr. Griffiths thus succinctly sums up the situation:—"Increased infant mortality and diminished birth-rate are two ugly facts which are not to the credit of our country or of modern civilisation." This expert opinion, taken in conjunction with the recent War Office report regarding the inferior physique of recruits, gives to the whole question an aspect of seriousness which demands the most careful consideration of both our sanitarians and our legislators. On the 29th the chief subject of discussion was smallpox and vaccination. Resolutions were passed urging the necessity of further legislation for vaccination and re-vaccination, and expressing the opinion that all children should, as in Germany, be vaccinated in infancy and again at the age of 10 or 12. At the evening meeting Dr. Frederick T. Roberts, of University College Hospital, delivered the address in Medicine, and took as his text, "Infective and Infectious Diseases." On the 30th an important discussion took place on the question of sewage-polluted shellfish and typhoid fever, and a resolution was passed recommending that all beds should be periodically inspected and registered under the supervision of a board free from local influences. The address in Surgery was subsequently delivered by Mr. Mayo Robson, the Hunterian Professor of Surgery, the subject of discourse being "Observations on the Evolution of Abdominal Surgery, from Personal Reminiscences extending over a third of a century, and the Performance of 2000 Operations." Next year's meeting of the association will be held at Oxford; Dr. William Collier, senior physician of the Radcliffe Infirmary, being nominated as president-elect.

The following report of the Mansion House Committee has been issued:—"At a meeting of the Appeal Committee of the governors of St. Bartholomew's Hospital, held at the Mansion House on January 19th, 1903, the Right Hon. the Lord Mayor being in the chair, the following resolution was passed: 'That, having regard to the criticism upon the proposed appeal for the enlargement of St. Bartholomew's Hospital, based on inaccurate information, a committee be appointed to report—(1) whether it is desirable in the public interest and on financial grounds to retain St. Bartholomew's hospital on its present site; (2) in the event of the retention of the hospital on its present site, whether any better scheme of rebuilding than that suggested by the governors can be devised; (3) upon any other matters affecting the hospital that the committee may think desirable to inquire into; that such committee do consist of 15 members, nine to be nominated by the Lord Mayor and six by the treasurer of the hospital, and that the Lord Mayor and the treasurer be *ex officio* members of the committee.'" In accordance with this resolution the following nine gentlemen were nominated by the Right Hon. the Lord Mayor, viz.: The Right Hon. Lord Sandhurst, G.C.S.I., G.C.I.E., chairman of the Middlesex Hospital, late Governor of Bombay; the Right Hon. Sir William Hart Dyke, Bart., M.P.; the Right Hon. Sir Saville Crossley, Bart., M.P., honorary secretary of King Edward's Hospital Fund; Sir Thomas Jackson, Bart., formerly chief manager of the Hongkong and Shangai Bank; Sir William Emerson, past president of the Royal Institute of British Architects; Dr. Pye Smith, F.R.S., Vice-Chancellor of London University, Consulting Physician to Guy's Hospital; the Hon. Alban Gibbs, M.P.; Mr. Richard Biddulph Martin, M.P.; Mr. Arthur Hill. Sir Trevor Lawrence, as treasurer of the hospital, nominated Mr. Alderman Alliston, Sir William Church, Bart., K.C.B. (president of the Royal College of Physicians), Mr. Benjamin L. Cohen, M.P.; Mr. Frederick Morris Fry, a member of the committee of King Edward's Hospital Fund; Mr. John Cary Lovell; Alderman Sir William P. Treloar. The Lord Mayor, as chairman, appointed Mr. Graham Tahourdin to act as secretary to the committee. The committee proceeded to examine the questions submitted to them, and beg to report:—(1) As to hospital site: The committee investigated this point very fully. They received and examined a large amount of evidence given both by inhabitants of the neighbourhood and by others, and they came to the conclusion, with only one dissentient, that it was impossible in the public interest to entertain the idea of removing St. Bartholomew's Hospital from its present site. In this connection they went thoroughly into the question of St. Luke's site, and came to the conclusion that such a removal, even were the site available, would not give the results its advocates anticipate, and that on that site the hospital would be cramped for room, and not able to perform its duties even as efficiently as at present. No evidence was brought forward in support of this plan that commended itself to the committee. The committee proceeded to investigate with great care, and with the assistance of evidence from competent persons, the value of the present site of the hospital. They came to the conclusion that the value of the site of St. Bartholomew's Hospital has been much exaggerated, and that there would be very little, if any, ultimate money profit to the hospital in removing the building from its present situation to any other locality. (2). As to buildings: The committee next carefully considered the present buildings of the hospital and the necessary additions demanded by the medical and surgical staff. They are satisfied that important additions to and a considerable rearrangement and improvement of the existing buildings are necessary, and they consider that, with the additional land purchased from Christ's Hospital, there will be ample room for the provision of a hospital with every modern appliance. The committee, having carefully examined the several plans placed before them, consider that a thoroughly efficient hospital can be provided by a gradual building scheme under which the improvements and alterations contemplated can be secured as soon as funds are obtained. The committee are assured of the great value of the medical school to the hospital and public. For the continued efficiency of the treatment of the patients, the teaching in the school and the advancement of medical science, greater facilities for research and teaching are absolutely necessary, and call for additional accommodation. (3). The committee also carefully examined the financial position of the hospital itself. The evidence showed that its properties and revenues are judiciously and economically administered, and that the cost per bed compares favourably with that of other hospitals. They find that it is impossible to hope that funds for the additions to and rearrangement of the hospital can be obtained from the resources of the hospital itself. Indeed, the recent purchase of land from Christ's Hospital will entail a charge of over £9000 per annum on its present revenue, leaving a deficit of £7000 per annum on the ordinary expenditure. The committee recommend that the rebuilding of such parts of the hospital as are most urgently needed be proceeded with so soon as sufficient funds are collected. They consider that the governors of St. Bartholomew's Hospital are fully justified in appealing to the public for assistance, and they heartily commend this appeal to the consideration of the citizens of London and to the public generally. The committee do not think that they would be justified in concluding their functions without placing upon record their opinion that from the evidence brought before them the

Digitized by Google

administration of the hospital has been conducted by the governors in a wise and enlightened spirit, with a due regard to economy, and in the best interests of the patients.

Queensland.

(FROM OUR OWN CORRESPONDENT.)

Private Septic Tanks—Swimming Baths—The Dental Board—Pathological Museum.

A CASE of some interest in connection with sanitary legislation has arisen recently in Brisbane. The enterprising proprietor of a large boarding-house in the city, while on a visit to Vancouver, was impressed with the excellence of the system of septic tanks which had been adopted there, and on his return to Brisbane, at an expense of something like £200, had a complete arrangement laid down in his establishment. In the place of a sloppy, smelly condition of things which existed previously—for however nearly perfect the dry-earth system may be for rural districts, or even for city dwellings where personal supervision is easy, in a large hotel or boarding-house, with constantly changing servants and customers, such supervision is practically impossible—cleanliness, comfort and absence of odour are conspicuous. The system has been in use for a short time only (it is said in order that the system may reach perfection, six months, some of which must be summer months, are necessary), yet the effluent water is absolutely clear and limpid, and on standing exhibits only the faintest precipitate, much less indeed than does the water with which the city is supplied for drinking purposes, and in marked contrast to the latter in that there is a complete absence of smell. The owner of the plant, delighted with its success, has proudly shown it to one or two medical men, who have expressed surprise and pleasure at the manifest superiority of this over the older and established-by-law system. Then, just as the enthusiast appears to be reaping reward for his labour and enterprise, in the comfort of his *clientèle* and the approval of his friends, comes a mandate from the sanitary department of the municipality ordering him to "close down" his septic tank within 14 days, and replace it with the old lawful pan system. A septic tank has been allowed and adopted at the Hospital for Chronic Diseases, and it is well known that there are very many ordinary polluting water-closets in use in the city, all of which are freely emptying into the river from which is obtained the water for our swimming baths; yet this far-seeing man must be prevented from taking action to ensure the comfort of his establishment, his only fault, so far as can be gathered, being that he is before his day and generation as is reckoned by the aldermanic mind.

The mention of swimming baths recalls to mind the serious grievance from which the people of Brisbane suffer. In the hot summer months, when bathing is the only—almost the only—possible form of pleasant exercise, and when exercise is perhaps of more importance than at other times of the year, there is lamentably insufficient bathing accommodation. There are four small public baths, which are inadequate even for the requirements of the boys, to say nothing of the girls; the river, of which so much use might be made, being dangerous from sharks. There is no encouragement given to school children to learn to swim. Compare Christchurch (N.Z.), where each State school has a large swimming bath attached. The antiquities who preside over the Education Department have not yet discovered that to make children march, turn right, and wheel left in a broiling sun, in a spot where no tempering breeze can come, is neither beneficial nor interesting, nor likely to produce a hankering after a military life. How immeasurable the difference between the present futile system of "physical culture" and the untrammelled freedom of a swimming bath! Age does not always bring wisdom, nor experience knowledge.

The Dental Board have had an experience somewhat similar to that of the Dental Board of South Australia as recorded by your correspondent in the issue of last month. According to the Queensland Act, the Minister has the right to overrule the decision of the Board, and, appealed to by some men whom the Board refused to register, he used his prerogative and instructed the Board to register them. It may be mentioned, in passing, that the Minister was very new, having come to his position in consequence of a change of Ministry. It is of great importance that the Board should be allowed to exercise their legally constituted powers with as little interference as possible, especially in the case of men who for some reason or other they may consider undesirable, while a wide leniency should be shown towards such as are deserving, especially when a new Act is being administered.

Dr. C. S. Hawkes, the honorary curator of the library and museum of the Branch, made his last appearance for some time at the "Clinical and Pathological" evening. He exhibited and presented to the museum a fine collection of pathological specimens of all kinds, obtained from his own practice. These, added to those prepared by him last year, have made an excellent nucleus for what promises to be a valuable collection. It is extraordinary that the hospitals have made no effort in this direction, and it is to be hoped that the appeal of the president of the Branch will meet with some response. Dr. Hawkes was given an informal "send-off" previous to his visit to England and America. As a result of his absence from Brisbane a very large number of people will have an opportunity of "changing their doctor."

Dr. Mayne, medical superintendent of the General Hospital, has returned to work after a prolonged holiday.

Victoria.

(FROM OUR OWN CORRESPONDENT.)

A Hatpin removed from the Lung.—The Army Medical Corps.—Dr. D. Grant's expected return from England.—The Hospitals' Volunteer Help League.—Male or Female Nurses in the Male Departments of Lunatic Wards.—Colonel McWilliams in Victoria.

A FOREIGN body in the form of a hatpin 3 inches long was removed from the base of the lung of a boy, 13 years old, by Mr. Hamilton Russell at the Alfred Hospital last month successfully. The Röntgen rays indicated the position of the pin, and an incision was made through the pleura, after resecting portion of a rib; the lung was then incised and the pin removed.

Considerable changes have been made in what used to be called the Medical Staff, but is now named the Army Medical Corps. Major Eugene Anderson has gone on the reserve, and Captain Cuscaden has been appointed to the field artillery, and is, I believe, to receive his majority. General Williams was informally entertained by the members of the Army Medical Corps at a supper at the Port Phillip Club Hotel, at which Colonel C. Ryan, P.M.O., presided. Colonel Ryan expressed the good feeling entertained by all the members of the Victorian Army Medical Corps towards the General, and thanked him for his valuable services and assistance to them.

Digitized by Google

Dr. D. Grant is expected to return from England about Christmas time.

The Hospitals' Volunter Help League is moving along, and collections have been started in Brighton and Elsternwick, and the amounts received were £10 and £15 respectively for the month. These sums are made up of very small offerings, and all the streets in these places have not yet had collectors allotted to them. Again, only people who do not subscribe to any hospital are canvassed. A conference was held of representatives of the various metropolitan hospitals and the Hospitals' Volunteer Help League to discuss the scheme of the latter body. After the subjects brought forward in connection with the scheme were discussed, Mr. John Blyth (Alfred Hospital) moved—"That this conference of delegates from the metropolitan hospitals are of opinion that the Hospitals' Volunteer Help League is engaged in work for the purpose of obtaining funds for such hospitals, and is in no way antagonistic to their best interests." This was seconded by Mr. J. S. Butters (Melbourne Hospital) and carried.

A good deal of controversy has been going on about the desirability of having male or female nurses in the male departments of the lunatic wards. The Chief Secretary, in reply to a letter, stated that the question of putting women in charge of insane patients had got beyond the experimental stage. Many lunacy experts are against this opinion, and consider that women are not in their proper sphere in attending to male lunatics.

Colonel McWilliams, P.M.O. for West Australia, is over on a visit to this State. It will be remembered that he went to South Africa with the first West Australia contingent, and was highly spoken of, both by his brother officers and the men of his contingent, for his untiring efforts on their behalf during the campaign. Dr. McWilliams is representing the West Australian Jockey Club at the forthcoming meeting of delegates from the racing clubs of the various states to be held during Cup week.

THE PAROXYSMAL NEUROSES AND HYPNOTIC SUGGESTION.

(To the Editor of the Australasian Medical Gazette.)

SIR,—After reading Dr. Hare's brilliant and stimulating articles, it has struck me that the nervous disorders which he includes under the term "paroxysmal neuroses" are among those which are peculiarly amenable to treatment by hypnotic suggestion. I do not think this fact would have occurred to me had I not read Dr. Hare's papers, and it is not brought out, as far as I am aware, in any of the works on hypnotism; but I am able to recall, both from my own practice and from the records of others, cases of migraine, asthma, epilepsy, gastralgia, angina pectoris, neuralgias, tic doloureux, pleuro-dynia, etc., which have either been cured or markedly benefited by hypnotic suggestion.

A case of migraine that I have recently treated may be taken as an example. The patient, a woman about 40, has suffered for nearly 25 years. She had tried practically every drug and therapeutic method, including hydrotherapy and a year of the Salisbury diet. In spite of all these, or it may be on account of them, she continued to have attacks about twice a week, severe headache, and exhausting vomiting. The attacks were always worst at the monthly periods. After four months' treatment by hypnotic suggestion I cannot claim that she is cured, but she is a very different woman. She sleeps better, and has got entirely rid of the nightmares she constantly suffered from. She has a better appetite, and has increased her diet list, which had become contracted to very narrow limits. She has more energy, and is doing her work better, and while she has had about half-a-dozen headaches only two have been severe and accompanied by vomiting. From twice a week to once in two months is undoubtedly an advance. And this has come about though she only reached a slight degree of hypnosis. Did space allow I could give details of other cases of paroxysmal neuroses which had been equally benefited.

Dr. Hare intentionally refrains from discussing the primary causation of these nervous disorders; and yet it is interesting to speculate as to the why and wherefore of the vaso-motor disturbance which seems common to them all.

They undoubtedly must arise from some primary instability or hyperexcitability to reflex stimulation in the group of cells which control the vaso-motor system. Now, although a tendency to these nervous conditions is often hereditary, they are seldom seen in early childhood, even cases of spasmodic croup and asthma generally occurring in children over two years of age. Is it that though the tendency is there, a habit has to be acquired, and that this depends again on some external circumstance or set of circumstances? Thus I have had during my life two or three rather sharp attacks of asthma, and these have always been precipitated by inhaling some sulphurous acid. This must be an idiosyncrasy on my part, for others who were similarly exposed did not notice it in the least. I think it probable that had I to breathe such fumes constantly, I should become a victim to chronic asthma, and that other irritants as well as sulphurous acid would be able in course of time to produce an attack.

If, then, the various paroxysmal neuroses are the expression of a vicious nerve habit, the rationale of treatment by hypnotism will become manifest. Whatever hypnotic suggestions can or cannot do, it is indisputable that it can control nerve habits and craves. No one who has seen the marvellous way in which the desire for alcohol can be negatived in a single séance can doubt the truth of this. Or, perhaps, an even more striking instance is the way in which the habit of not sleeping can be gradually beaten down and overcome. Chronic insomnia is undoubtedly a pathological nerve habit, possibly due also to vaso-motor disturbance, and in this way akin to the paroxysmal neuroses.

It has seemed to me also that the case of migraine to which I have referred presents all the characteristics of a nerve habit, and that by hypnotic suggestion I have gradually been educating the patient out of it. Therefore, I was neither surprised nor discouraged at occasional relapses, brought about on one occasion at least by a severe nervous shock, and I am looking forward with a fair amount of confidence to a permanent result, even when the treatment is given up. If it can be proved that hypnotic suggestion can combat pathological nerve habits, then it stands out at once as the true remedy for the neuroses with which we are dealing.

It is not merely a palliative, such as the nitrites which Dr. Hare suggests, but a remedy that will deal with the primary cause, and bring about, in some cases at least, an absolute cure of the condition. How, in the ultimate analysis, it can do this I am quite at a loss to explain; but if medical men will accept the statement, empirical though it may be, and give the method a trial, they will be amazed at the results obtained in some cases, though I must warn them to be prepared to be equally disappointed in others.—I am, etc.,

RICHARD ARTHUR.

Macquarie-street, Sydney.

Digitized by Google

"OLLA PODRIDA."

(*To the Editor of the Australasian Medical Gazette.*)

SIR,—The remarks of "Aqua" in his letter, "Olla Podrida," in your last issue must prove of very great interest to most all general practitioners who have dealings in contract practice in these States. They show up in a clear and concise manner many of our grievances, and great good would, I am sure, result if articles such as this one could be read by those practitioners who are not members of the Association.

Although agreeing with the remarks therein, I contend that it is an impossibility conducive to increasing finances for medicos in large-sized towns supporting two, three, and upwards, and all of whom are not members of the Association, to dictate terms to lodges, as the members' refusal to certain conditions will be the non-members' acceptance. The fault lies with ourselves. We shall never make the public understand the true position of our profession until we set a higher value upon our services. It is told of the late Sir Andrew Clarke that when he was asked to give gratuitous advice he said, "No; but I will give you the money with which you can purchase it." In this answer there was generosity combined with dignity and self-respect that fully understood the preciousness of the knowledge that he had the power to impart. In my own experience I will quote one of many instances. A club patient, who advertises frequently as follows: "To lend, from £10 to £1000 on easy terms." This advertiser, his wife, and family receive a medical man's advice and attendance for the paltry sum of 26s per annum, inclusive of medicines. He may be considered by the lawyer, storekeeper, butcher, baker, tailor, etc., a very good mark, and their services when required will have, no doubt, to be paid for handsomely; but the poor medico will have to grind and slave at all hours, day or night, for the paltry remuneration abovementioned. That the labourer is worthy of his hire is but one side of the question; the other and much the more important is "see to it that the hire is worthy of the labourer."

There is no better illustration of the inutility of thus giving ourselves away than that an eminent statesman of to-day styled us trade-unionists, and defined the latter as "men who did the worst possible work at the highest possible price;" and thus are we so insulted after all the gratuitous services we render to our fellow-creatures and the life of self-sacrifice we lead. Oh! can we not see what fools we make of ourselves by placing so little value on our hard-earned experience and dearly-bought knowledge, and by so doing compel the public to treat us with disrespect and indignity? By joining the Association we have the power in our own hands to see that justice is done not alone to ourselves, but to our brother practitioners, and thus become masters of the situation.

"*Haud facile emergunt quorum virtutibus obstat res augusta domi.*" (Juvenal.)—I am, etc.,

E. SYDNEY HAWTHORNE,
F.R.C.S., L.R.C.P.

Mudgee, N.S.W., Oct. 26.

The A.N.A. in Court.—At the Burwood Police Court recently R. H. Rowe sought to recover from the local branch of the A.N.A. the sum of £4, alleged to be due to him for medical expenses in connection with the illness of his wife. It was stated in evidence that Rowe had called in a medical man to attend to his wife, as the society could not get a regular medical man. He received £1 from the branch funds, and although he applied frequently for the balance he could not obtain it from the society. The magistrate suggested a postponement to allow of a settlement, and this was agreed to.

UNIVERSITY INTELLIGENCE.

Sydney.—At the last monthly meeting of the University Senate, on the recommendation of the Dean of the Faculty of Medicine, it was resolved that Dr. W. G. Armstrong be appointed lecturer in public health, and Dr. Sydney Jamieson lecturer in medical jurisprudence, to fill the vacancy created by the death of Dr. W. H. Goode. It was further resolved that Professor Welsh be requested to act as honorary curator of the museum of normal and morbid anatomy in the place of Dr. Jamieson. The following examiners were appointed to act with the professors and lecturers for the conduct of the annual examinations in medicine in the month of December:—Anatomy, Dr. A. E. Mills; physiology, Professor E. C. Stirling; pathology, Dr. G. E. Rennie; materia medica, Dr. A. Watson Munro; medicine, Dr. Macdonald Gill; surgery, Dr. G. T. Hankins; midwifery, Dr. S. H. MacCulloch; gynæcology, Dr. Fourness Barrington; clinical medicine, Dr. E. J. Jenkins; clinical surgery, Dr. T. Fiaschi; psychological medicine, Dr. Eric Sinclair; ophthalmic medicine and surgery, Dr. Odillo Maher; medical jurisprudence and public health, Dr. W. G. Armstrong and Dr. Sydney Jamieson.

Melbourne.—The questions of the celebration of the jubilee of the University of Melbourne in 1906, and in connection therewith a proposal to invite the British Association for the Advancement of Science to hold its meeting in Melbourne in that year, have been discussed by the University Council. It was proposed—"That the celebration of the jubilee of the University be (provisionally) fixed for the year 1906; and that the Chancellor be requested on behalf of the University to communicate with the Lord Mayor and the City Council with a view to sending a joint invitation through the State Governor to the British Association to hold its 1906 meeting in Melbourne at the time of the University celebration." After considerable discussion, in which it was pointed out that the University had no funds to provide for this celebration, it was agreed to send an invitation to the British Association asking that body to meet in Melbourne in 1906. The consideration of the celebration of the jubilee was postponed.

MILITARY INTELLIGENCE.

NEW ZEALAND.

Baldwin, George Pearce, L.R.C.P., L.R.C.S., Edin., to be Surgeon-Captain New Zealand Militia.

Barcroft, Alfred Ernest Jaffray, to be Surgeon-Captain New Zealand Volunteer Medical Staff.

Gilmer, Surgeon-Captain Hamilton Andrew Hugh, New Zealand Militia, to be Surgeon to the Permanent Force, Wellington.

Pearless, Surgeon-Major Walter Relf, to be Brigade-Surgeon Lieutenant-Colonel New Zealand Volunteer Medical Staff.

Purdy, Surgeon-Captain James Robert, to be Surgeon-Major New Zealand Volunteer Medical Staff.

O'Neill, Surgeon-Captain Eugene Joseph, New Zealand Militia, to the New Zealand Volunteer Medical Staff.

The following medical officers are constituted and appointed under clause 3 of "The Military Pensions Act, 1902":—

Collins, Surgeon-Lieutenant-Colonel William Edward, M.B., M.R.C.S., Eng.

Purdy, Surgeon-Major James Robert, M.B., C.M., Aberd.

Herbert, Surgeon-Captain William Edward, M.D., F.R.C.S., Edin.

Digitized by Google

REVIEW OF CURRENT MEDICAL LITERATURE.

MEDICINE.

Perforation in Typhoid Fever.

Colin Russel (*Montreal Medical Journal*, August, 1903) states that in a recent article on "Leucocytosis in Typhoid Fever" he endeavoured to show how unreliable for definite diagnosis this symptom was *per se*, and how, after vainly seeking for one distinctive sign by newer methods, we are obliged to fall back on older methods of physical examination to confirm any such diagnosis. He quotes a series of cases of perforation, and emphasises the variations and symptoms which occur when perforation of the bowel ensues in the course of typhoid fever, and how often the so-called classical picture of perforation is absent, and instead of this a quite "atypical" sequence of events transpires. Osler has already pointed out that the so-called typical picture of this complication really refers to the ensuing peritonitis. In the cases occurring in the Royal Victoria Hospital in Montreal, the variations are considerable, the state of the patient sometimes so good, early after the perforation has occurred, as to render the diagnosis doubtful; in fact, the onset is so insidious at times, or so "atypical," as it has been wrongly entitled, that the record of some cases of this nature is of interest. Case 1.—A male; perforation on the 17th day of the disease. *Typical features:* Sudden abdominal pain, generalised, with some slight tenderness; vomiting one hour later. *Atypical features:* No distension or rigidity; no change in pulse or temperature. The patient died in 18 hours after the initial symptoms, with the usual symptoms of peritonitis. Case 2.—A male, aged 21; perforation on the 35th day of the disease. *Typical features:* Existing distension more marked; liver dulness obliterated; increased tenderness, especially in the right flank; fall in temperature from 102° to 98°. *Atypical features:* No increase in rigidity; no complaint of pain; pulse unaltered; no vomiting. The patient died on the second day after. Case 3.—Perforation on the 23rd day. *Typical features:* Pain, radiating to the end of the penis; some fulness with obliteration of liver dulness: rigidity more marked on the right side; pulse wiry and rapid; fall in temperature from 101° to 98°. Case 4.—Perforation on the 11th day. *Typical features:* Pain in the lower part of the abdomen; vomiting, three hours after onset. *Atypical features:* Tenderness not marked; no distension or obliteration of liver dulness; no rigidity; no change in the pulse or temperature. Case 5.—Perforation on the 17th day. *Typical features:* Patient vomited, and four hours later complained of pain in the lumbar region on being moved into the bath; some distension. *Atypical features:* Temperature rose from 103° to 104°, and no change in the pulse; no rigidity; no marked tenderness. Case 6.—Perforation on the 34th day. *Typical features:* Pain in the lower left quadrant; marked distension. *Atypical features:* No change in pulse or temperature; rigidity and tenderness not marked. Case 7.—Perforation on the tenth day. *Typical features:* Pain increasing in severity in the right lower quadrant; vomiting of a small quantity of food; leucocyte count, 28,000. *Atypical features:* No rigidity or distension; no obliterated liver dulness, only slight general tenderness; no change in pulse or temperature. Case 8.—Perforation on the 11th day. *Typical features:* Pain extending to the end of the penis, also over the hypogastric region; tenderness in this region, and fall of temperature to 99·2°. *Atypical:* No distension or impairment of liver dulness; no rigidity; no change in pulse. Case 9.—Perforation on the 19th day. *Typical features:* Slight abdominal pain, recurring with more severity and commencing rigidity and tenderness; increase of pulse from 110 to 140. *Atypical:* No distension; liver dulness not impaired; temperature rose from 100° to 104°. Case 10.—Perforation on the 20th day. *Typical features:* Generalised abdominal pain and general tenderness, more marked in the right lower quadrant. *Atypical:* No rigidity or distension; liver dulness not impaired; no change in pulse or temperature. Case 11.—Perforation on the 12th day. *Typical features:* Pain in the abdomen; slight rigidity in left iliac region; general tenderness; fall of temperature. *Atypical:* No distension or obliteration of liver dulness: no change in the pulse or respiration. Case 12.—Perforation on the 32nd day. *Typical features:* Sudden pain in abdomen, with general tenderness; rise in pulse from 100 to 112. *Atypical:* Rigidity and distension not marked; no impairment of liver dulness; no change in temperature; leucocyte count, 3400. Case 13.—Perforation on the 21st day. *Typical features:* Sudden abdominal pain; some tenderness just above the pubes. *Atypical:* No distension or impairment of liver dulness; no rigidity; no change in pulse or temperature. Case 14.—Perforation on the 19th day. *Typical features:* Sudden pain in abdomen; gradual fall in temperature, and increase in rapidity of respiration. *Atypical:* No distension or impairment of liver dulness; no change in pulse; no nausea or vomiting; leucocyte count, 8000. It will be seen from this series of cases that, with the exception of pain, which was present in all cases, there are no definite signs or symptoms which we may count on being present within two or three hours of the onset, even in the majority of cases. The symptom—complex of early perforation is not an obvious certainty in all cases, to say the least; indeed one must often base the diagnosis on but one or two symptoms in the absence of all others, and one may likewise justly add that an error in such a diagnosis leading to unnecessary operation is apt to be far less serious in its results than is the fatal delay of awaiting all the definite signs.

The Etiology of Serofibrinous Pleurisy with reference to Cytological Diagnosis.

Bunting (*Johns Hopkins Hospital Bulletin*, July, 1903) states that the etiology of so-called "idiopathic" pleurisies with effusion in apparently healthy individuals has been a vexed question for over half a century, and directly opposite views have been held. Some maintain that all such are really tubercular in origin; others, that in a large proportion of cases the origin is not tubercular. The opportunity of directly determining the condition of the pleura in the acute stage of an uncomplicated pleurisy at post-mortem examinations is rarely obtained, and reports of such cases are rare. However, Kelsch and Vaillard have recorded a series of 16 fatal cases of acute pleurisy, in which tubercles were found on the pleura in all 16 cases. Failing, however, in the matter of large statistics on the direct post-mortem determination of the cause of the disease, there are open two avenues of investigation; the rather direct method of the examination of the exudate, and the indirect method of following the subsequent history of the patient. Along the latter there are several carefully compiled sets of statistics, which show in general that pleurisy patients are very apt in a short time from the onset of their disease to show signs of tuberculosis in other organs. The aspirated exudate in pleurisies has been repeatedly studied bacteriologically by cover-slip, culture, animal inoculation, and serum reaction, and quite recently cytological examination has come into prominence. The latter method was introduced by the work of Widal and

Digitized by Google

Ravaut, published in 1900, and of Wolff, published in 1901. Widal and Ravaut studied 56 cases of idiopathic pleurisy with effusion, the effusion in all being taken as late as the ninth day from the onset of the disease or later. In these cases they find agreement in the fact that the white cells of the sediment are almost exclusively small mononuclear cells. In addition are found many red-blood corpuscles, a few large mononuclear cells, a few large endothelial cells (apparently derived from the pleura) and only rarely a polymorphonuclear cell, except in two cases aspirated on the ninth day, in one of which there was one polymorphonuclear cell to nine small mononuclears. They consider it also of importance that the endothelial cells are few in number and always isolated. Wolff's results agree in the main with those of Widal and Ravaut, but he finds that very early in the disease the exudate in tuberculous cases is almost exclusively polymorphonuclear, and concludes that at first it is entirely so. The small mononuclear, however, soon becomes evident and at the third day may make up one-third of the cellular exudate, gradually increasing in proportion from then on until eventually the whole exudate may be made up of mononuclears. He concludes that an exudate of one half or more of small mononuclear cells speaks for the tuberculous nature of the process. The author has studied a series of cases of pleural effusions, and his results agree in general with those of the workers already referred to. He finds there is a very definite formula to the cellular exudates, and that the time at which the exudate is taken is a marked factor in determining the particular proportion of cells present. In his earliest cases at about the end of the first week, the polymorphonuclears form from 15 to 12 per cent. of the exudate, the other cells being almost entirely small mononuclears, with a few cells indistinguishable from the large mononuclears of the circulation. During the second week there is a fall in the number of the polymorphonuclears, the limits being from 5 to 3 per cent. After this time it is often impossible to find a single polymorphonuclear, the exudate being almost entirely mononuclear. There are always a large number of red blood corpuscles, and a few scattered and isolated epithelial cells. The author does not pretend to show that all idiopathic pleurisies are tuberculous, but his study has shown that these effusions have an exudate remarkably uniform in cellular content and general characters, which may be assumed to indicate a uniformity in the nature and etiology of the process. This uniform cellular formula, the work of others seems to indicate, is the formula of tuberculous pleurisy.

The Clinical Importance of Albuminuria.

Schroeder (*Medical Record*, July, 1903) discusses this question from the life insurance point of view. He states that when albuminuria is associated with high arterial tension, thickened arterial walls or hypertrophy of the heart, and renal casts are found, we may be sure that organic changes in the kidneys have occurred. Usually the first of these signs to appear is a high tension pulse, and most writers are reluctant to believe that no structural changes exist when this sign is wanting. Osler writes that after the age of 40 the state of the arteries is far more important than the condition of the urine. While this holds true perhaps in the majority of cases, the writer, as well as others interested in examining for life insurance, has met with many cases of well-marked albuminuria, with granular casts, in which none of the above-mentioned symptoms has appeared at the time of examination, nor for years after. This has occurred so frequently that the writer does not hesitate to assert that it would be as excusable to wait until cavities had developed before making a diagnosis of tuberculosis of the lungs as to wait in all cases for a long train of symptoms in addition to albuminuria before making an effort to prevent chronic nephritis, or to retard its progress, if already existent. Bradford states that the arterial changes in some forms of chronic nephritis are restricted to the vessels of the kidney itself. In these cases the kidneys are shrunken and fibrous, the capsule is thickened and leaves a granular surface on stripping, and there is comparatively little hypertrophy or arterial change to be noticed except in the renal vessels. The writer has selected some cases in illustration of these points:—Case 1.—A merchant, aged 43, when albuminuria first detected. Heart and blood-vessels normal; after examination of several specimens of urine patient was accepted for life insurance. He died, just ten years later, from Bright's disease of two years' standing. Case 2.—Merchant, aged 31, examined and found to have albuminuria, a pulse of 108, and a metallic click with both heart sounds. Ten years later no albuminuria and no sign of heart trouble, and he was accepted for insurance. Seven years later he died from Bright's disease of 18 months' duration. Case 3.—Merchant, aged 47, had albuminuria with hyaline casts and a few red blood-cells. Four days later he was accepted, as the urine was found normal. He died five years later from Bright's disease of two years' duration. Case 4.—A bank president, aged 29, was rejected for life insurance in consequence of albuminuria persistent for several days, the specific gravity being 1018. Fifteen years later he was again rejected, as traces of albumin were discovered in samples of urine obtained on five different days, the specific gravity ranging from 1020 to 1022. The heart and blood-vessels were found to be normal at both examinations. He died four years later from Bright's disease, after a period of unusual strain. Case 5.—A railroad president, aged 51, was rejected on account of a trace of albumin with a few hyaline casts. The heart and vessels were normal. Four years later the presence of albumin was doubtful; there were a few hyaline casts, but no change in heart or vessels. He died 12 years from the time of the first examination from chronic nephritis with heart complications. In these reports of chronic cases terminating fatally, special attention is directed to three points—the intermittence of the albuminuria, the occasional absence of tube casts, and the frequency of grave kidney disease without apparent disturbance of the circulation.

PATHOLOGY.

The Fats of Pneumonic Exudations.

Christian (*Journal of Medical Research*, August, 1903) records the results of a research on this question. He finds that in the earlier stages of pneumonic exudation there is present in the cells, particularly in the polymorphonuclear leucocytes, a substance in the form of small droplets, which is soluble in strong alcohol and in ether, insoluble in water and in 80 per cent. alcohol; which stains intensely with Sudan iii. and Scharlach R., and which does not reduce osmium tetraoxide. In the later stages, in addition, there is present likewise in the cells, generally in the form of larger droplets, a substance which has the same solubility properties, which also stains intensely with Sudan iii. and Scharlach R., but which does not reduce osmium tetraoxide. In other words, the exudation cells of pneumonia contain two substances of a fatty nature, differing in some of their micro-chemical reactions, the one appearing earlier than the other. As to their nature, two hypotheses may be advanced: (*a*) The two substances are the same in chemical composition, but differ in their physical condition; (*b*) they are chemically different substances.

Digitized by Google

According to the first, it may be supposed that one is in a more finely divided state than the other, or possesses some form of envelope (possibly albuminous in nature) to keep it in a state of emulsion, and that under these conditions it is not capable of being penetrated by osmium tetraoxide, and so there is no reduction. Against this hypothesis the author adduces certain facts, and considers the second hypothesis the more probable. Of these two substances, the one occurring later in the disease agrees in its staining properties with body fat, and is probably true fat. The one occurring early differs from true fat. It may be some form of palmitin or stearine; it may be the same as the substance described by Kaiserling and Orgler, and spoken of by them as myelin, or it may be some other fatty substance. The exact nature of it cannot be determined by its staining reactions. That it is not true myelin is shown by the fact that it does not reduce osmium tetraoxide. As to the source of the two substances, the one is present early and is sometimes noted in the leucocytes while yet intravascular. This suggests that the substance is present in the leucocytes before they leave the blood-vessel, and so forms a passive part in the exudation process. This is supported by the finding the same droplets in leucocytes obtained from the circulating blood of pneumonia patients. Smears were made in the usual way of blood obtained by ear puncture. These were placed in 10 per cent. formaldehyde and then treated in the same way as the frozen sections of lung. The blood of nine patients thus treated showed the presence of droplets in every way identical with those found in the lung alveoli. Though it may be true that not all of this substance reaches the lung within the leucocytes, a considerable part certainly has this source. Does the other substance reach the lung alveoli in the same way? From the observations of Arnold and others, we know that fat is often transported by leucocytes, and undoubtedly some in the lung may come in this way. However, as the true fat appears mainly late in the disease, when the migration of leucocytes is no longer actively taking place, it seems probable that the greater part is taken up by the cells in the exudate from the surrounding fluids in which it is present, and owing to injurious conditions acting on the cells is not utilised, but stored as fat—a fatty degeneration in the sense at present accepted. The author's conclusions are as follows:—1. In pneumonic exudations two kinds of intracellular fatty substances are present. 2. The one differs in some reactions from the ordinary body fat, appears early in the disease, and is in the main brought by the leucocytes from the circulating blood. 3. The other is identical in reactions with ordinary body fat, appears late in the disease, and has the same origin as the fat of so-called fatty degeneration elsewhere.

On the Relations of Pseudo-Tuberculosis Bacilli to Tubercle Bacilli.

Felix Klemperer, in an article in the *Zeitschrift für Klinische Medicin*, translated for the *Journal of Tuberculosis*, July, 1903, records the results of some experimental work on the question whether the inoculation of animals with acid-proof germs confers an immunity upon them against infection with the tubercle bacillus. For this purpose he employed the bacilli of grass and milk, and also the bacilli from butter, which had been grown in his laboratory for some time. All three growths were highly resistant to acids, and, on microscopical examination, resembled the tubercle bacillus very closely, so as to be easily mistaken for Koch's bacillus. The cultures were distinguished with ease from the tubercle bacillus cultures, inasmuch as they all three showed an abundant growth, even after 24 hours, appearing as a moist and pasty film of a yellow tint. The animals used for experiments were guinea-pigs, and the fresh sputum of patients with tuberculosis was invariably used for the tuberculous infections. The preliminary inoculation of the guinea-pigs with the acid-proof bacilli proved to be much more difficult than had been expected, for the majority of these animals succumbed to these inoculations. Klemperer found that subcutaneous inoculation was less fatal than intraperitoneal injection, but even in these there occurred abscesses with marked frequency, and in some of them there developed also nodules and peritonitis. Of 19 guinea-pigs in which subcutaneous injection had been made, six were brought to a conclusion of the test. These animals were inoculated with tuberculous sputum. Other animals, having been first inoculated with tuberculous sputum, were subsequently subjected to subcutaneous inoculation with the acid-proof bacilli. The results of his experiments showed that the injection of acid-proof bacteria produced an inhibitory influence upon tuberculous infection and created a certain immunity against the latter. The protection was but slight and transient, but still positive and distinct. The author next discusses the question of the significance to be attached to the correspondence in the phenomena of agglutination demonstrated by Koch, and the relations of immunisation between acid-proof bacteria and tubercle bacilli shown in his experiments. The conclusion seems inevitable that there exists a close relationship between the acid-proof bacteria and the tubercle bacilli; that they belong to one and the same species, and are phylogenetically related. The fact that the relations between the two, so far as they show mutual immunisation, are but faintly marked, speaks for the great distance which exists been the two. But the course of evolution from the acid-proof saprophyte to the tubercle bacillus of man and cattle may have taken a considerable length of time; but yet they are related, and are undoubted links of the same chain. The question then arises how to bring into agreement with this view the differences which unmistakably and constantly exist between the two. After all, these differences are only quantitatively and not qualitatively different from the distinctions between the tubercle bacilli of mammals and those of birds and cold-blooded animals. While the acid-proof bacteria do not invade the animal organism, and do not multiply therein nor spread spontaneously, yet they are not without pathogenic powers. They produce nodules resembling tubercles, as Möeller showed, when they are injected with butter. Their virulence, which is slight, may be increased by passing through a number of animals, whereby the acid-proof bacteria begin to grow less rapidly, and the culture approaches distinctly in appearance to cultures of the tubercle bacillus, although, it is true, only to a certain extent. The acid-proof bacteria and tubercle bacilli cannot be converted into one another; their differences remain. But this fact does not preclude the conclusion that the acid-proof bacilli and the tubercle bacilli, as well as the tubercle bacilli of mammals and those of birds and cold-blooded animals, are phylogenetically related, *i.e.*, belong to the same species, and that there is a continuous evolution from the acid-proof saprophytes through the bacilli of the cold-blooded animals and birds to those of men and the bovine species, with an increased demand as to the quality of the culture medium and the temperature of growth, with a decreased rapidity of growth and an increasing virulence.

PÆDIATRICS.

A Case of Henoch's Purpura.

Orr (*Practitioner*, September, 1903) remarks on the

Digitized by Google

rarity of Henoch's purpura, and wishes to draw attention to this disease. The family history is as follows:—The father has several times had acute rheumatism, sometimes very severely; he has, as a consequence, disease of both the aortic and mitral valves; during none of his attacks of acute rheumatism has there appeared a trace of any tendency to hæmorrhage. The mother is healthy, and comes of a healthy stock. The patient had originally four brothers and five sisters; two of the brothers are dead of tuberculosis; another brother died of mitral disease, the result of acute rheumatism. All the sisters are, and have always been, healthy. The patient was 14 years of age; she has always been rather delicate. A year before the present illness she suffered from purpura simplex rheumatica. The petechiæ came out in successive crops, and were generally preceded by some pain; after about ten days the condition disappeared; slight arthritic symptoms were present during the illness. A year later, the patient being 15 years old, a condition at first sight apparently similar to the above began, but speedily developed more serious features. At the outset there was no constitutional disturbance, but malaise and a distinct feeling of illness supervened; the temperature rose to 99·6° and the pulse to 106. Moreover, in addition to the petechiæ about the wrists and ankles, erythematous patches appeared on the extensor surfaces of the legs. At intervals of four or five days there appeared exacerbations of the constitutional symptoms, but no visceral complications of any sort appeared. The wrists and ankle joints were slightly painful and swollen. The patient was kept in bed, and on a milk diet, but this regimen, in conjunction with the use of sodium salicylate, alkalies, and turpentine had little apparent effect on the disease. After a fortnight the clinical phenomena became absolutely periodic, and new features developed. The tongue assumed a peculiar appearance. The surface was covered by irregular figured patches, with a whitish fur. Simultaneously there occurred considerable abdominal pain and vomiting of bile and mucus, and for some time it was very difficult to get any form of nourishment retained. Bearing down pains and loose stools accompanied the sickness. The temperature now rose to 101°, and fluctuated between that and 102·4°, with a pulse of 110 to 120 per minute. In two or three days the gastro-intestinal derangement ceased under the influence of bismuth salicylate, and for a few days there was decided improvement. Then there ensued a remarkable periodic recurrence of all the symptoms, the cycle of events lasting a week. Firstly, the tongue became covered with the patches of fur, as already described. Next day the temperature and pulse rose, and these symptoms were followed by vomiting and loose motions. This chain of events recurred with remarkable regularity for six weeks. During two of these weekly exacerbations the patient passed a large quantity of fluid blood per rectum, rectal examination failing to reveal any local cause. There were no hæmorrhages from any other mucous surface. The urine contained no albumen. No recurrence took place after the sixth week. The treatment adopted was the usual dietetic treatment for rheumatic manifestations, viz., milk. Salicin, salol, bismuth, salicyl., and turpentine were also used, but without any decided benefit. After remissions began to occur regularly, the juice of oranges was tried. This was followed by decided improvement, and finally by entire cessation of the recurrences, whether *post hoc* or *propter hoc* it is difficult to say. These symptoms correspond to the variety of purpura described by Henoch; it appears to be associated with or to complicate certain cases of purpura simplex rheumatica. What the cause of the malady is it is very difficult to say.

The Dysentery Bacillus in a series of cases of Infantile Diarrhœa.

Wollstein (*The Journal of Medical Research*, Boston U.S.A., August, 1903). The systematic examination of the stools in cases of diarrhœa occurring in infants and young children was begun in October, 1902, with the view of determining the presence or absence of the bacillus dysenteriæ (*Shiga*) in all cases of diarrhœa, and whether any special clinical symptoms characterise the cases in which the organism was found. The material was obtained from the New York Foundling Hospital; the cases sent into the ward for gastro-intestinal diseases were examined as they came in without selection; 114 cases were examined. The technique used was that recommended by Dr. Flexner and his pupils. The stools were obtained as fresh as possible: where blood and mucus were present some was taken on a platinum loop and suspended in neutral broth or peptone water. From this suspension agar plates were poured at once. After the plates had been in the thermostat 24 hours, a number of glucose agar tubes were inoculated from them, and 24 hours later the gas producing organisms were rejected. From the tubes without gas, transplants were made to plain acid agar, and then the bacilli were tested as to their reaction with serum from a horse immunised with the Flexner, (Manila) organism. Stools from healthy children were examined in 20 cases; in no instance was the dysentery bacillus found. No case in which the stools contained blood as well as mucus failed to show the dysentery bacillus in culture, but many of the negative cases showed large quantities of mucus and undigested food without blood. Of the 114 cases studied, the dysentery bacillus was found in 39. Of these 39, 30 were 12 months old or younger, eight between one and two years, and one was three years old. As to mortality, 29 died, one left the hospital improved but not well, and nine were cured. The character of the stools varied greatly: blood appeared in 20, usually as small specks mixed with mucus, and not in every stool; in three cases fluid blood was present, and many stools consisted entirely of blood and mucus. In every case mucus was passed usually in very large amounts. The stools varied from two to nine in 24 hours, were mostly green in colour, and accompanied by tenesmus in five instances; the absence of this symptom is due partly to lack of observation. The temperature varied between 98° and 103°, but in nine cases it never rose above 100·8°. The fatal cases ran their course in three days to six weeks, by far the greater number dying in the first week, or early in the second week. Recovery took place after one to four weeks. All the cases except 12 gave a positive serum reaction. Infection in the hospital occurred in several instances.

To sum up, the clinical features are those of dysentery, with frequent mucous and bloody stools. In some cases of hospital infection, occurring during convalescence from other diseases (especially pneumonia), and in the mild cases, the stools may never contain blood, but mucus is present in every case. The serum reaction is uncertain during the first week, frequently positive after the sixth day, but may be absent for two weeks. It cannot be relied upon for early diagnosis. The isolation of the bacillus from the stools is the only positive means of diagnosis. The bacilli are present in the stools for two or three weeks, but may remain longer.

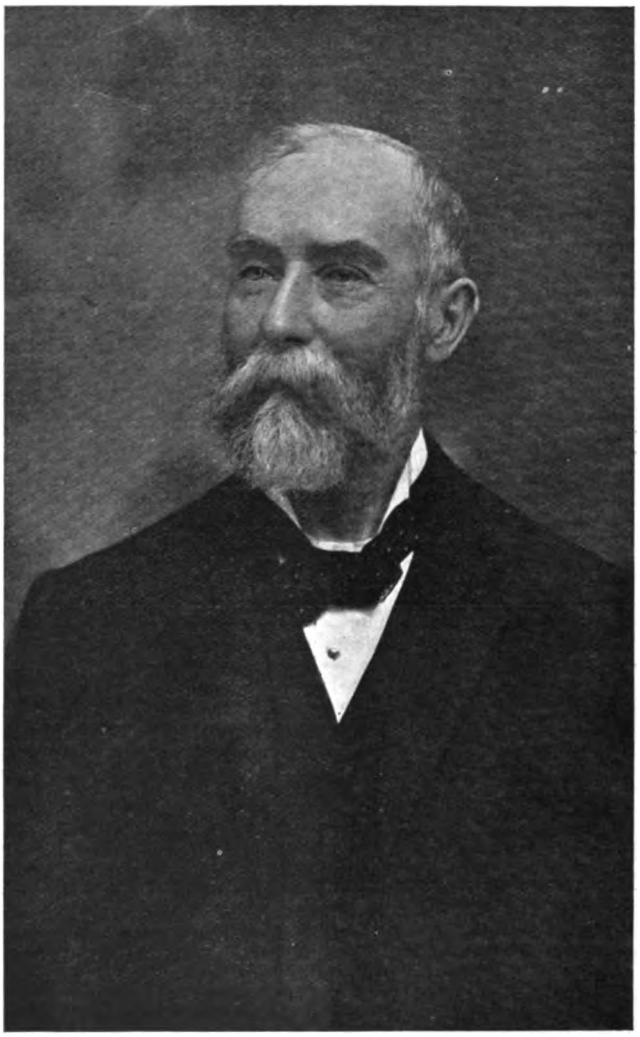
Plague in Queensland.—A boy, 12 years of age, was found to be suffering from plague last week. He resided at Wolloongabba, a suburb of Brisbane, and has been removed to the Colmslie plague hospital. Plague-infected rats continue to be caught at Townsville.

Digitized by Google

OBITUARY.

William Henry Goode, M.A., M.D. (Dub.), 1876, R.N., Sydney.

William Henry Goode, who died at his house in Macquarie-street, Sydney, on October 15th, 1903, was born in Dublin, and educated at Trinity College, where he graduated in arts and medicine. In 1868 he entered the Imperial Navy as a surgeon, receiving his first commission on the "Dido," then stationed on the West Coast of Africa, but subsequently in Australian waters. At the expiration of his term of service he returned in the "Dido" to England, and for some time held a post at Haslar Hospital. Being at this time in indifferent health, he resolved to retire from the navy and engage in private practice. With this end in view he returned to Sydney, a spot which had pleasant associations for him from the days served on the Australian station, and here entered at once upon the practice of his profession. The first public appointment held by him in this city was that of visiting surgeon to Randwick Asylum. Afterwards he was employed for some time to assist the then Health Officer, Dr. Alleyne. With the establishment of Prince Alfred Hospital Dr. Goode received an appointment as one of the surgeons of its staff. From about this time also dates his association with the School of Medicine connected with our University. He was the first lecturer on Medical Jurisprudence and Public Health, a position he filled with admitted capacity to the day of his death. After five or six years' service on the staff of the Prince Alfred Hospital he resigned the position, and afterwards was appointed honorary surgeon to the Sydney Hospital, a connection that was not severed till some little time before his death. The esteem in which he was held by his colleagues was testified to on many occasions by reference to his opinion and long experience. In cases of contagious and infectious disease he was frequently called upon to give an opinion by the Board of Health, of which body he eventually became himself a member. Among the many public and quasi public offices filled by him was that of official visitor to the hospitals for the insane. In the progress and welfare of the people among whom he had cast his lot, Dr. Goode took a very genuine interest, which he evinced by his many years' service as chairman of the Right Honourable G. H. Reid's election committee. In person the late doctor was a man of fine physique, of dignified, even stately presence, with a face through which shone that amiability of nature which attached to him so closely, and by the tenderest bonds, a host of friends. A severe attack of malaria, when stationed on the African coast, brought a premature greyness to his hair and accounted also for his characteristic exsanguine look. In intellectual attainment he was a scholar, a jurist, and a surgeon. After a fashion that is all too rapidly passing away, he kept up the knowledge of classics that in his day had formed the most considerable part of a lad's education, and which, with riper years, became to him a source of delight and consolation. His opinion on a medico-legal point or a difficult surgical operation were alike sought and valued. To have seen him in the witness-box



THE LATE Dr. W. H. GOODE,
Died October 15th, 1903.

Digitized by Google

was a picture to be stored in one's memory: his striking presence, calm, deliberate utterance, the attitude of one who sought to do dispassionate justice, must have carried conviction time after time to the minds of juries. He was a skilled witness, and whilst fully capable of meeting any attack that might be made upon his testimony, he was one of the most self-respecting men that ever stood in a witness-box.

To his friends, and even to those who had no claim of friendship on him, he was generous to a fault. His personal charities were many, too many to be ever fully known, for he had a nature inherently sympathetic, and was easily moved by any tale of sorrow or distress. He ranged himself, in the generosity of a large heart, on the side of the weak and suffering. To the accumulation of money he was indifferent, and carried this carelessness of means, so often characteristic of the generous Irish nature, to an extreme, so that in the end the greater portion of his work was done, without fee or reward, in the various charities of the city. He did not seek, but even seemed to discourage, private practice as coming between him and the work, the unpaid, often ill-appreciated work, of the hospitals and kindred public institutions.

Apart from his place in the public gaze, there was a place he held in the lives of those who had his friendship, one that will not easily be filled. He was a strong friend—one that a man could rely on. If he had his enemies, unto us their name is unknown; but if he had, they found in him a generous foe. He was a charming conversationalist, and when in the vein could illustrate his points with quaint stories and descriptions of places he had visited, creating an atmosphere for his characters and presenting them to his listeners in the light and shade of a finished picture. To sum up, he was a type of that ideal of worth, intellect, and "the great heart"—an Irish gentleman. He leaves a widow and three children.

William Chisholm Ross, M.B., Ch.M. (Melb.), 1885, Dimboola, Victoria.

Dr. Ross died at the end of last month, and his loss is greatly felt by all his old friends. The writer of these lines had the opportunity of knowing Dr. Ross intimately from his student days, and a more amiable or kindly disposition it has never been his lot to meet. Always cheerful, always ready to help any fellow-creature in distress, and with it all in any social function the best of boon companions. Poor old "Chis." (as he was always called by his student chums), his death has come as a very sad shock to many of us in the profession in this State, although we knew that he was suffering from tubercular phthisis for some few years before he died.

At Dimboola, where he had been practising for the last 16 years, intense grief was felt by the inhabitants for 50 miles round when they heard of Dr. Ross' death, and it is proposed to perpetuate his memory by some public memorial. A resident, writing in one of the local papers, pays a high tribute to the respect felt for Dr. Ross. He says: "By the death of Dr. Ross, Dimboola and district has lost its most prominent man, and one who held the respect of all classes of the community. His self-denying interest in humanity had no equal, and, I am sure, from hundreds of homes in this town and district, a widespread feeling of regret is felt at his loss. I am also sure I am echoing the sincere wish of every resident, rich and poor, that some steps be taken to perpetuate his memory."

Dr. Ross graduated at the Melbourne University, and was 41 years of age when he died. He leaves a widow and two young sons.

Robert Henry Ritchie, M.B., 1894, Ch.B., 1895 (Melb.), Horsham, Victoria.

We have also to announce the death of Dr. Ritchie, a highly-talented Melbourne graduate. He passed with honours in his last year at the University, and was afterwards senior resident at the Melbourne Hospital. His loss will be deeply felt at Horsham, where he had a splendid practice and had a great reputation in surgery. He leaves a wife and two children to mourn his loss.

INSANITY IN AUSTRALIA.

New South Wales.

From the annual report of the Inspector-General of the Insane, Dr. Eric Sinclair, for the year 1902, we learn that on the 31st December, 1902, the number of insane persons under official cognisance was 4687, and on the 31st December, 1901, there were 4488; the increase during the year, therefore, was 199. The average annual increase for the past twenty years was 119; the increase now shown is much above the average. The proportion of insane to the general population is one insane patient to 299 persons in the State. The number of admissions during the year was 947. Of these, 822 were admitted for the first time, and 125 had been in the same hospital on some previous occasion. As with the increase in the number remaining, this is much above the average, being, in fact, the largest number of admissions in one year yet recorded. Of the admissions, natives of New South Wales formed 50 per cent.; other Australian States, 10 per cent.; England, 17¼ per cent.; Ireland, 11 per cent.; Scotland, 4¼ per cent.; and other countries, 7½ per cent.

The proportion of persons becoming insane to the population in the year 1902 was 1 in 1484.

The number of patients discharged recovered was 378, equal to a rate of 39·91 per cent. on the admissions and re-admissions. In this return are included the figures from the Hospital for Imbeciles at Newcastle, from which no recoveries can be expected. Excluding Newcastle, the recovery rate is increased by 2·09 per cent., making it 42 per cent. The number of those discharged improved was 46, showing a proportion to the admissions and re-admissions of 4·85 per cent. The recovery rate, though lower than is usual in this State, is still a good one, and compares favourably with that of England, which is 37·27 per cent. (excluding idiots), or of Victoria, 38·88 per cent. The number of patients discharged on probation, or granted leave of absence to the care of friends during the year, was 336, making with those remaining from the previous year 497. Of these, 167 were discharged recovered, and 170 were returned to hospital, leaving still on leave at the close of the year 153, as compared with 160 left at the close of the previous year.

The deaths numbered 183; calculated on the average number resident this gives a percentage of 7·18. By far the larger number of deaths were due to cerebral and nervous diseases. The proportion was 119 out of a total of 318, or 37·4 per cent. Of these, 36 were cases of general paralysis, a disease which, invariably fatal, is increasing in modern times out of proportion to the increase of population. Pulmonary consumption is given as the cause of 56 deaths, and old age and debility 24.

Accommodation.—The year 1902 has been characterised by the largest number of admissions on record, and by the largest increase in the population of the hospitals in any one year; and although some part of these may be due to the distress caused by the drought, an examination of the figures given in an earlier part of the report shows

Digitized by Google

that each year an increased number of patients must be expected in the hospitals. It is apparent that the present institutions cannot continue to accommodate these without enlargement, and the need for this has now become pressing. The most satisfactory method of providing the accommodation is by proceeding with the erection of the hospital at Orange, as has been recommended in previous reports. However desirable the erection of a new institution is as the correct mode of proceeding, it is hardly possible to have any of the wards in it ready for occupation in time to meet the necessities of the present year. It will, therefore, be requisite to enlarge the existing institutions. Of these, Gladesville urgently requires the addition of admission wards for acute cases of both sexes; and at Rydalmere, at moderate cost, accommodation for a considerable number of men could be provided.

Cost of Maintenance.—The exaggerated price of provisions and stores due to the drought has been of the most serious consequence in increasing the cost of the institutions. In the year 1901 the cost of provisions was £44,278 for 4225 patients, while last year it was £56,884 for 4376 patients. The augmentation of the cost from this cause is aggravated by the incidence of the tariff, which added considerably to the price of general stores. There has, too, been an increase in the cost of salaries from the enlargement of the staff necessary to carry out the changes in the hours of duty of attendants, nurses, and servants. The amount expended on the maintenance of patients during 1902 was £143,253 5s 5d, being £32 14s 8½d per patient for the year. The State, however, received £18,157 from the estates of the patients, and from the friends who were responsible for their maintenance, and £972 10s 1d from the sale of fat and old stores, and the rent of land, which reduced the cost of each patient to £28 8s 7½d for the year. This is, therefore, the actual charge the State is put to for the maintenance of the patients.

Changes in Staff.—Alterations in the junior medical staff occurred during the year, and disinclination to enter the service is still manifest with medical men. Until by an adequate salary recognition of the value of the work done in the wards by the medical officers is made, it must be expected that hesitation will be shown in applying for positions on the staff. The placing of nurses in the ward for senile and demented male patients at Parramatta has proved its value by the improved nursing of the patients, and the increased comfort afforded them.

Queensland.

From the report of the Inspector of Hospitals for the Insane (Dr. J. B. Hogg) for 1902, we learn that there were, on the 31st December, 1902, 1813 patients under care in the institutions for the insane in Queensland. During the year the number of patients rose from 1752 to 1813, an increase of 61, which is very slightly over the average annual addition. Calculated on the estimated population of 514,851, on the 31st December, 1902, 3·52 persons in every 1000 were patients in hospitals for the insane. The total number of patients under care during the year was 2086 and the average number daily resident was 1786; 339 patients were admitted to hospitals for the insane during 1902. The greatest number ever admitted to the hospitals was 364 in 1899, but for the last two years the admissions have been almost stationary.

Causes of Insanity.—In 99 of the 339 cases admitted, the precise cause of the insanity was not ascertained; in 43 cases there had been intemperance in drink; in 41 hereditary tendency to insanity; in other 41 the patients had had previous attacks of mental disease; in 19 there was obvious disease of the skull and brain; 11 suffered from epilepsy; 10 from syphilis; 6 from congenital mental defect; and other 6 were females whose mental affection was consequent on childbirth. The worries and anxieties of the drought did not, as might have been expected, largely increase the admissions.

Discharges.—These numbered 184—131 were discharged as recovered, 47 as relieved, and 6 as not improved. The percentage of recoveries was 38·64 of those admitted during the year, and in addition 13·86 were relieved, so that 52·5 per cent. of the admissions were discharged. 94 patients died; calculated on the average number of patients daily resident, the death rate was 5·26 per cent. 21 deaths were due to disease of the nervous system; 11 to chronic kidney disease; 19 to inflammation of the lungs; and 21 to tuberculosis. Of these last, 9 were suffering from the disease when admitted to the hospitals. There were 6 cases of death by violence, all of male patients.

Leave of Absence.—At the end of 1901, 25 patients were absent with their friends, under the leave clauses of the Insanity Act. Eighty-seven other patients were granted leave during the year; 48 of these were discharged; 34 returned at the end of their leave; and 30 remained on leave on the 31st December, 1902.

Expenditure.—The total cost of the institutions for the year was £50,885 16s 5d—£48,243 18s 10d being spent in hospitals for the insane, and £2641 17s 7d in reception houses. The total cost was £4304 6s 2d more than in 1901—an increase of £4235 1s 9d for hospitals, and a decrease of £69 4s 5d in reception houses. This extra expenditure is entirely due to the drought, with the consequent rise in the price of foodstuffs and the failure of the asylum grown crops. The net cost per patient per year was £22 10s 5d.

Accommodation.—At Goodna the female wards, and at Toowoomba both male and female wards, are much overcrowded. These difficulties will end as soon as the new wards at Toowoomba are occupied. All the buildings are in good repair, except the two original male and female wards at Goodna, which need reconstruction to bring them up to date.

Employment of Patients.—At Goodna the male patients, under the guidance of attendants, have cleared additional grazing land, formed a farm of 37 acres out of the scrub on the river bank, and built new dams, in addition to the usual work of keeping the institution supplied with almost all of its fuel, growing all its vegetables, etc. At Ipswich the patients have enlarged the existing dams. At Toowoomba, the recently-acquired land at Gowrie Creek has been fenced. At both Goodna and Toowoomba, arrangements were made to use the waste water of the hospitals to irrigate the crops.

South Australia.

From the annual report for the year 1902 of Dr. W. L. Cleland, the head of the Department of Lunacy in South Australia, we learn that the asylum population on the last day of 1902 was 991 persons. This total shows an increase of three over the corresponding date for 1901. For the past three years the ratio of the officially known insane per 1000 of the population has been practically the same, namely, 2·68. If a longer period is examined, such as 20 years, it will be noticed that in the last decade the progressive increase is less than during the first period of ten years, showing that the accumulation of the insane, which practically this means, has not kept pace with the general increase in the number of the population. Although it has been stated that for the past three years the total ratio for both sexes inclusive has remained the same, yet it is found upon examination that this result is obtained by as great a progressive decrease in the ratios of the men as a progressive increase in the ratios of the women.

Digitized by Google

Admissions.—The number of patients admitted during the year 1902 was 210. Of these, 167 had not been in the asylum before, and 43 had been committed on some previous occasion. These figures are approximately the same as for 1901 when taken as totals. The number of men admitted is the lowest since 1876, whereas the number of women admitted is the highest on record; in each case with one exception.

As regards "occurring insanity" the figures for 1902 for South Australia show a ratio of 5·68 insane to 1000 of the population.

The causation of the insanity is practically the same as for 1901, and if the tables for the two years are compared, they present a remarkable correspondence, considering that they are dealing with different sets of individuals and were compiled quite independently one with the other.

Discharges.—The percentage of recoveries on admission is the lowest on record, being only 44·7; the average being 57 per cent., the bulk of the discharges being from those who have been under two years in the asylum.

Deaths.—The mortality amongst the patients during 1902 has been unusually heavy, being 10·7 per cent. on the total number resident in the asylum; the average is 8·8 per cent. A feature in this mortality is that it has affected an unusually large proportion of the chronic portion of the inmates. The causes of death that were markedly in excess of those for 1901 were diseases of the lungs, the cases of pulmonary tuberculosis being, however, the same for each year, namely, three. This latter disease is considered a scourge in English asylums, but in South Australia it does not appear to be so prominent. It is possible that the plan of segregating the patients in detached and isolated parts may have something to do in lessening the chances of infection, for the asylum is practically a collection of little asylums scattered over the area of 134 acres, each containing from 50 to 100 patients. By far the largest number of deaths have been from senile decay, many of these being quite recent admissions.

Expenditure.—Considering the enhanced price of the necessaries of life, the expenditure may be considered as very moderate, and is only ½d per head more than it was in 1901. This may be fairly attributed to the closing of the Adelaide Asylum and preventing the duplication of many items, such as fuel and the use of disinfectants. The fees for maintenance received show a falling off from £200 to £300 as compared with 1900 and 1901, the result probably of the trying seasons that have been experienced. The total expenditure was £28,180 13s 9d; the daily average cost per patient was 1s 7d.

The Staff.—The event of most importance has been the closing of the Adelaide Asylum. All the patients were transferred to the Parkside Asylum during the first half of the year. The vacancy in the medical staff was filled by the appointment of Dr. A. A. Macfarlane, who had had considerable experience in lunatic asylum matters.

West Australia.

From the annual report of Dr. S. H. R. Montgomery, the Superintending Medical Officer of Lunatic Asylums, for the year 1902, we learn that on December 31st, 1902, there were 365 patients in the hospitals for the insane in Western Australia, distributed as follows:—Fremantle, 317; Whitby Falls, 48. The corresponding total on 31st December, 1901, was 342. The increase of patients for the year 1902 was therefore 23, the increase for 1901 being 63. The rate of insane to sane persons in Western Australia on that date was one in 589, or 1·73 per thousand. This small proportion of lunatics to general population in Western Australia is ascribed to the rapid increase of population from outside sources, and in all probability the proportion will increase to that of the other States once the population becomes a settled one, increasing principally by natural means.

Admissions.—The admissions for 1902 were: Males, 85; females, 31; total, 116. The figures for 1901 were: Males, 109; females, 37; total, 146. The ratio of admissions to the population was 1 in 1862.

Discharges.—The number of patients discharged recovered during 1902 was 60. In 1901 the figures were 52. The proportion of recoveries to admissions in 1902 was: Males, 41·17 per cent.; females, 80·64 per cent.; total, 51·74 per cent. The extraordinary large percentage of female recoveries I am quite at a loss to account for. Certainly, it is not that the asylum buildings and appointments are conducive to a large recovery rate.

Deaths.—The total number of deaths for the year was 22—males, 19; and females, 3. Calculated on the daily average numbers resident, the death rate was 7·54 per cent. males, 3·03 per cent. females, and total for both sexes, 6·28 per cent. General paralysis of the insane constituted the largest cause of death. Five male patients died from this disease, or 22·7 per cent. of the total deaths.

Restraint.—Restraint by means of a canvas jacket has been necessary in one or two cases owing to the facts that (1) there are no padded rooms in the asylum, and consequently it is impossible to put violently suicidal patients in seclusion; and (2) that the airing court accommodation makes it impossible to classify the patients. When the patients are removed to the new hospital for the insane, mechanical restraint will be done away with.

Reception Houses.—In a large country like this reception houses are a necessity. The most economical and most useful method would be to have a reception ward for lunatics in connection with all the Government hospitals. If this were done many cases, especially acute alcoholic mania, would never reach the asylum, as all that is necessary to ensure complete recovery in most of these cases is a little careful nursing and proper diet.

Accommodation.—The present accommodation is very inadequate. Fremantle Asylum is especially overcrowded. The completion of contract No. 1 of the Claremont Hospital for the Insane may be expected shortly, and will relieve this to a certain extent; but it will be necessary to push on the main buildings as soon as possible, otherwise the overcrowding will become dangerous.

Expenditure.—The average number resident in Fremantle Asylum was 301, and the cost of maintenance was 15s per head per week. The cost this year has increased by the amount of new stock which had to be obtained to put the asylum on a proper footing. The average number of patients resident at Whitby Falls Asylum was 48; the cost of maintenance was £1 3s 11d per head per week. It will be noticed that the amount per head per week at Whitby Falls is much greater than at Fremantle. This is partly due to the fact that, owing to the position of the asylum, rates of salaries, contract rates, and expenses in transit are greater than at Fremantle; and, secondly, that in all institutions those which contain the smallest number of inmates cost most per head, owing to the greater proportion of staff, etc., required.

General Remarks.—A convenient site for the new asylum has been chosen near Claremont, and the first contract has been let, so we can look forward to having an up-to-date hospital for the insane in a reasonable space of time. The present asylum buildings being so unsuitable, make our work among the insane here hopeless and depressing.

Digitized by Google

PUBLIC HEALTH.

New South Wales.

Health of the Metropolis.—Dr. Armstrong reports:—"The number of deaths in the metropolis during October was 436, which is equivalent to an annual death rate of 10·36 per 1000 of the estimated population. There were 119 deaths of infants under one year of age, a figure which on 1141 births (the number registered during the month) yields an infantile mortality rate of 104 per 1000 births. The mortality from diarrhœal diseases was below the average for October; 23 deaths were registered from causes under this heading, whereas the average number for the same month during the previous five years was 36. Zymotic diseases, except diarrhœa, caused a total of 19 deaths, of which scarlet fever was responsible for 7, influenza for 2, whooping-cough for 6, diphtheria for 2, and typhoid fever for 2. Phthisis caused 44 deaths, which is about the average for the month. Deaths from respiratory diseases numbered 63, 27 of which were due to bronchitis and 33 to pneumonia. Bright's disease was fatal rather above the average and caused 35 deaths. Other scheduled causes of death showed no departure from the usual monthly experience. Two deaths were registered from epidemic cerebro-spinal meningitis. The notified attacks of the notifiable infectious diseases during the month were: Scarlet fever, 123; diphtheria, 30; typhoid fever, 33. The decline in the notified attacks of scarlet fever has continued, and the number notified during the month was scarcely higher than the average number during October for the previous five years. Typhoid fever was slightly more prevalent than it has been during previous Octobers, the average number of attacks for the month during the previous five years having been 22."

The Bubonic Plague.—Dr. Armstrong reported to a recent meeting of the Health Committee of the City Council that no plague-infected rats had been secured by the rat-catching staff for a period of three months. He recommended that the staff should be reduced, and that the services of those showing the best record of work should be retained.

Adulteration of Wine.—Mr. Hamlet, the Government Analyst, in giving evidence before the Parliamentary Select Committee on Preservatives in Food, said he had known as much as 60 grains of salicylic acid in one pint of colonial wine, and 23 grains was frequent. He had found the highest percentage of salicylic acid, sometimes as much as 80 grains, in non-intoxicating wine, which was labelled pure grape juice. This, he believed, was made from grape juice only, and was used chiefly for sacramental purposes by the churches. Mr. Hamlet also stated that many of the temperance drinks contained up to 80 grains of salicylic acid to the pint.

Swine Fever.—As a result of the measures taken by the officers of the Stock and Brands branch to deal with the outbreak of swine fever in the county of Cumberland, it is probable that the disease will soon be stamped out in this portion of New South Wales. Directly the infection made its appearance in several of the piggeries within the area referred to it was gazetted as infected; the officers of the department were thus enabled to quarantine the piggeries in which sickness appeared amongst swine, and to have the infected animals killed. The Chief Inspector of Stock, Mr. Jones, has received a report from one of his inspectors, who was deputed to visit every piggery in the county of Cumberland, that in two places only was the disease found. Eight animals that were infected were at once killed, and the piggeries disinfected.

Adulteration of Raspberry Syrup.—A test case of considerable importance to mineral and aërated water manufacturers, and of general interest to the public, was heard recently at the Water Police Court before Mr. Smithers, S.M., when Alfred Martin, an employee of Tooth & Co., Limited, was proceeded against by the City Council on an information alleging that he sold on August 4th last, to the prejudice of William Edward Gundry, the purchaser thereof, a bottle of raspberry syrup, the same not being of the nature, substance, and quality of food demanded by him, and contrary to the Public Health Act. William M. Hamlet, Government Analyst and official analyst to the Commonwealth, said he made an analysis of the sample, and the result was that he found it to be a coloured liquid sweetened with sugar. There were no preservatives in it. It was coloured with acid roseine. He had analysed samples of raspberry syrup often. Roseine was not a constituent of raspberry syrup. Raspberry syrup was a liquid having a high density, coloured with the natural colouring matter of the raspberry, and containing the true essence of the raspberry, to which sugar had been added. It was a food. For the defence it was urged that the raspberry syrup as manufactured by the defendants was exactly the same as that sold as raspberry syrup all over the world, and was manufactured in the same way. Medical evidence was adduced to confirm the statement that the colouring matter used, viz., acid roseine, was harmless to the system in the quantities used. Mr. Smithers said that there being insufficient evidence to decide that the sale was to the prejudice of the purchaser, he must dismiss the information.

Food Adulterations.—At the Central Police Court, H. J. Packer, for selling sweet spirits of nitre not of the nature, substance and quality demanded, was fined 20s, with costs. For a similar offence, J. P. Thoransen was fined £5, with costs. The analyst's report in the latter case showed that the sample obtained by Inspector Duncan was absolutely devoid of the principal constituent of the drug. Thomas Ross, for selling milk not of the quality demanded, was fined £2 and costs. Oliver Strong and Alfred J. McKinley, for selling raspberry syrup not of the nature, substance, and quality demanded, were each fined 20s, with costs. Ah Wong was fined 20s, and costs, for having disposed of a certain article of food, to wit, mustard, which was not of the nature, quality, or substance demanded. Evidence was given to the effect that the sample of mustard was adulterated with 40 per cent. of wheaten flour.

West Australia.

Bubonic Plague.—A case of plague has been discovered at Midland Junction. The patient was a brickmaker, 27 years of age, who died at the Woodman's Point Quarantine Station on November 10th.

THE PLAGUE IN AUSTRALIA.

Report on the Second Outbreak of Plague in New South Wales.

In his official report, Dr. Ashburton Thompson discusses the causes of the maintenance and spread of plague. The observations of 1900, that the epidemic was not caused by direct communication with the sick, nor by diffusion of infected articles, nor by place infection, have been confirmed. The evidence in support of the theory that the rat is the sole source from

Digitized by Google

which infection is communicated to man has been largely supplemented, and the attention of the authorities is now being given to determine the species of the fleas which infest rats in this part of the world, to variations in their frequency on rats at different times, and to examining into their ability to bite man. The promise of safety for the future lies neither with the attempts to prevent the importations of plague rats, which must fail from time to time, nor with attempts to exterminate the rats infesting the locality to be defended, which has been found to be practically impossible, though both of these measures have their valuable uses. The really safe course lies in habitually excluding rats from inhabited premises.

The second outbreak of the disease declared itself with the third case in January, 1902, and concluded on June 8 of the same year. There were 139 cases, of which 39 ended fatally. On August 6 one further case occurred at Newcastle. 132 cases occurred amongst whites, 34 proving fatal, and seven cases among male Chinese, of which five ended fatally. The epidemic lasted actually 23 weeks. The onset was marked by extreme deliberateness at first, and by an almost regular acceleration in its later stages, whilst its end was abrupt and decisive.

No public inoculation was done during this outbreak. Two alone of the persons attacked asserted that they had been inoculated. One patient who died had been inoculated with the Haffkine serum at Rockhampton nearly two years before.

The gross fatality was almost exactly 28 per cent., and this was rather more than 6 per cent. lower than the gross fatality observed in 1900. By excluding the Chinese in both instances, the 1902 death rate was reduced to 25·75, and that of 1900 to 32·4. The figures seem to point to a diminishing virulence of the infection among the whites.

As to the origin of the epidemic, the only hypotheses are the two following:—Either the epidemic depended on a recrudescence of the epizootic of 1900, or upon a second epizootic set going by newly-imported plague rats. As to the former, the Health Department had reason to believe that the epizootic of 1900 died out in the course of that year, and the recurrence was apparently too long delayed to have been a recrudescence. The balance of evidence at Sydney appears to tell in favour of reimportation.

While there is no pathological evidence that man is infected by feeding, there is abundant testimony that he is usually infected by inoculation, and that the agent between the rat and man is the flea. It was found that although commonly the flea which infests the rat has no special predilection for man, it yet appears to have no repugnance to him, and it will feed freely upon his blood if it be hungry. Hence it is plain that there are at least two chances against man's being bitten by any of the species which infest rats. One is that fleas which have left a plague rat may never come within reach of man though on the same premises with him; the other is that if they reach him, they may do so at a time when they are not so urged by hunger as to bite an unaccustomed host. These chances amply account for the frequency with which all persons who inhabit premises visited by plague rats escape.

Report on the Fourth Outbreak of Plague in Queensland.

In his report on the fourth outbreak of plague in Queensland, Dr. Burnett Ham, the Commissioner of Public Health, states that the outbreak consisted of 26 cases with 14 deaths, distributed as follows:—Brisbane, 19 cases, 9 deaths; Rockhampton, 2 cases, 2 deaths; Townsville, 3 cases, 2 deaths; Bundaberg, 2 cases, 1 death; total, 26 cases, 14 deaths. The gross fatalty was 53·8 per cent. Five of these patients were Chinese; several of the cases, including two at Brisbane, were only discovered by post-mortem examination.

The recent outbreak in Brisbane began on February 8th, 1903, and ended on May 23rd, 1903. As in former years, the disease was sporadic in character, and bubonic in form, and in no instance was there direct evidence of the spread of infection from person to person.

We are still somewhat at a loss as to the manner in which many of the patients became infected. Our cases failed to reveal any evidence of the point of entry of the poison into the body as marked by any specific lesion.

In the attempt to focus the facts indicating the spread from rat to man, or man to rat, no clear light can be thrown upon the question as to how the recent outbreak originated. No information with regard to sickness or unusual mortality amongst our rats was forthcoming. With the exception of rats and mice, the influence of animals in spreading the disease has been in our experience inappreciable.

As to the question of transference of plague bacilli by the agency of suctorial insects, etc., Mr. C. J. Pound, the Government Bacteriologist, and Dr. O'Brien, in their reports, mention several interesting facts in this connection. During the hot summer months the plague wards swarmed with mosquitoes, and both patients and nursing staff were constantly bitten. Examination of mosquitoes (Culicidæ), caught after feeding on a patient, septicæmic in type, gave negative results, but from two specimens which had fed on the body of another patient, bacilli were separated which, in their morphological and cultural characters, were identical with the *Bacillus Pestis*. An interesting observation in connection with the possible accidental transmission of plague from rat to rat by the agency of cockroaches is related by Mr. Pound.

The first infected rat this year was found on the 9th of January last; the first case in man was reported one month later, on the 8th February. Recognising the extreme importance of the agency of rats in the dissemination of plague, the Health Department has made special efforts during the last twelve months in the work of rat destruction. Both infected premises and infected rats were confined to a much smaller area—practically the city proper—than in any previous outbreak. The presence of infected rats on premises where indigenous cases had occurred was demonstrated fairly often enough to support the now generally accepted proposition "that the danger of contracting plague stands in relation to the presence of rats in dwellings or enclosed premises." Plague-infected rats, however, were found time after time on premises where no case of human plague had occurred.

The importance of ship-borne rats and intercommunication between shore and ship rats was prevented, so far as it was possible to do so, by the stringent enforcement of the plague regulations relating to the mooring of vessels while in port. By inter-State agreement every vessel leaving Queensland ports carried a fumigation certificate certifying that such vessel had been fumigated while empty at the port of departure.

Of 16,409 rats collected in Brisbane during the last twelve months, 9530 were examined bacteriologically, and 91 were found to be infected, or a percentage of less than 1, being the lowest on our Brisbane records so far. The number of cases of plague in man reported during the present year is also lower than in any previous year.

The cases in man were observed to begin during the hot, moist, or "muggy" season of the year—January and February—reach their limit about the end of May, and notably decline at the beginning of June, when the colder season with the westerly winds set in. Thus our experience of plague in Queensland is in direct opposition to plague in India, where in the latter country an

Digitized by Google

epidemic increases rapidly during the cold season and declines during the hot weather.

In the so-called "stamping out" process of plague the best results have appeared to follow the removal of filth and garbage from premises, but, above all, the steady and systematic scavenging of districts well and wisely directed. In May of last year the municipality of Brisbane received a thorough cleansing of all dirty areas within its boundaries. Metal garbage boxes, fitted with cover, were provided to every householder, and a special by-law was passed by the municipal council compelling householders to place the refuse of the kitchen, etc., therein. Immediately following this special cleansing a notable decrease in the number of cases of plague was observed. In November of last year three cases of plague occurred at Townsville, where for some months previous to the outbreak plague-infected rats had been found. A cleansing "order" was carried into effect by the Townsville Municipal Council, and some thousands of loads of filth removed from the town. The last case of plague occurred there on 26th November, 1902, and since that date there has been no further development.

In July of last year the administration and execution of the plague regulations were transferred from the control of the local governing bodies as constituted in the various "Joint Boards for the Prevention of Infectious Diseases," to the Department of Public Health. The Commissioner of Public Health has now complete and sole control of the plague regulations, the central health authority, under the Government, being supreme in all matters relating to plague, cholera, and smallpox.

In all the important towns along the coast a health officer has been gazetted to carry out the plague regulations, such officer acting as the deputy of the commissioner.

The following is a brief scheme of action adopted:—1. Notification of all cases of plague or suspicious cases to the commissioner. 2. Investigation of the case by the health officer. 3. Bacteriological examination of "specimens" by the health officer and the Government Bacteriologist. 4. Isolation of patients in hospital. 5. Supervision of "contacts" during the incubation period. (Segregation of "contacts" now abandoned except in cases of pneumonic plague.) 6. Fumigation of infected houses, clothing, bedding, etc. 7. Cleansing and disinfection of infected areas by the medical and sanitary staff of the Health Department. 8. Destruction of rats. 9. Bacteriological examination (daily) of rats. 10. Supplies of curative serum to the health officers and general hospitals. 11. Protective inoculation. (Confined at present to members of cleansing gangs). 12. Inspection of the districts for detection of nuisances, etc. 13. Dissemination of literature among medical officers of health, practitioners, etc. 14. Fumigation of coastal vessels with a view to the destruction of rats.

SOME OF THE BEST MEDICAL BOOKS, RECENTLY PUBLISHED, WHICH CAN BE RECOMMENDED, ARE:—*Babcock*—Diseases of the Heart, illustrated, 25s. *Butler*—Diagnostics of Internal Medicine, illustrated, 25s. *Dudley*—Principles and Practice of Gynæcology, 3rd edition, illustrated, 24s. *Holt*—Diseases of Infancy and Childhood, 2nd edition, illustrated, 25s. *Keyes'* Surgical Diseases of the Genito-Urinary Organs, illustrated, 24s. *Taylor's* Genito-Urinary and Venereal Diseases, 2nd edition, illustrated, 22s 6d. *Williams*—Obstetrics, illustrated, 25s. *Tuttle*—Diseases of the Anus, Rectum, and Pelvic Colon, illustrated, 25s. *Woolsey*—Applied Surgical Anatomy, regionally present, illustrated, 24s.—All these books may be obtained from L. BRUCK, Medical Bookseller, Sydney.—[*Advt.*]

HOSPITAL INTELLIGENCE.

Hospital for Sick Children, Sydney.—At the monthly meeting of the board of management of the Sydney Hospital for Sick Children held in October, Mr. W. P. Faithfull reported to the board that Sir John See, on behalf of the Government, had promised £5000 towards the purchase of a site for the new hospital, consisting of some 6 acres of land at Pyrmont Bridge-road, and had assured him that the board would be justified in entering into negotiations at once for the completion of the arrangements with the executors of the estate. The board authorised the site committee to enter into a contract, which has since been signed, for the purchase of the land mentioned for the sum of £6000, the difference to be provided by the hospital. Several contributions towards the necessary additional £1000 have already been received and promised. A building committee was appointed, and the architects were requested to prepare and submit designs for its consideration as soon as possible.

The Gundagai Hospital (N.S.W.).—The trustees of the Gundagai Hospital have not yet been consulted in connection with the new hospital. There is only about £1181 in hand to the credit of the building fund, and it is estimated that, with furnishing, the new hospital will cost about £4000.

Royal Prince Alfred Hospital, Sydney.—At the monthly meeting of the Board of Directors of the Royal Prince Alfred Hospital, held in October, a letter was received from the hon. secretary to the Queen Victoria Memorial Prince Alfred Hospital Fund, proposing to hand over to the directors a sum of £13,329 in trust for the furnishing and equipment of the new Queen Victoria memorial pavilions, with the stipulation that the amount from the fund be dealt with in a separate account, to be audited and published annually. It was unanimously resolved to accept the trust, and it was agreed that letters of thanks be sent to the members of the executive committee and the executive officers of the fund, in recognition of the valuable work done. It was also decided that the chairman of the committee, Mr. H. S. Levy, be appointed a life governor of the hospital. It was decided, in view of the abolition of the position of clinical assistants to the medical out-patient department, recently agreed upon, that two additional honorary assistant physicians be appointed. The secretary put forth a scheme, with a view to obtaining more effective organisation on behalf of the hospital in the districts surrounding it, including the holding of conference of Mayors of the various municipalities interested.

Balmain Hospital (N.S W.).—On October 31st the annual house-to-house collection in aid of the funds of the Balmain Hospital, under the auspices of the annual collection committee, composed of delegates representing the united friendly and trades societies and churches of Balmain and district, was taken up, the amount realised being £41 14s 3d.

Hay Hospital (N.S.W.).—At a recent meeting of the members of the committee and medical staff of Hay Hospital, the resigning matron, Miss Cornwell, was presented with an illuminated address in blue morocco portfolio form as a token of appreciation of the good work she had done while matron.

Parramatta District Hospital (N.S.W.).—A cheque for £17 has been handed over to the treasurer of the Parramatta District Hospital by the Rydalmere hospital aid society; and the Castle Hill and district hospital aid society have handed a cheque for £62, the result of the efforts of the society for the year.

Digitized by Google

Cootamundra Hospital (N.S.W.)—The Hospital Saturday collection has resulted in a sum of £25 2s 6d being obtained. The hospital boxes yielded £4 13s 6d in addition.

Parkes Hospital (N.S.W.).—At the last meeting of the hospital committee indignation was expressed at the delay of the department in supplying plans for the proposed new hospital. As a proof of the bad condition of the present building, a gale of wind during the week dislodged a number of bricks from one of the walls, and a nurse narrowly escaped being struck by one. It was resolved to forward to the Chief Secretary a protest against the delay.

Wagga Wagga Hospital (N.S.W.).—The demonstration by the friendly societies, fire brigade, and other local bodies, held in aid of the Wagga Hospital, resulted in £17 being netted.

Maitland Hospital.—The foundation-stone of the new hospital was laid with some ceremony on October 28th by the president, Mr. Neville D. Cohen. The new building is to be of brick, constructed on modern lines, with a handsome exterior. There are two stories, provision being made for eight beds, baths, lavatories, and operating theatre, on the latest principle. When completed the building will cost about £8000.

Hobart Hospital.—At the monthly meeting of the Hobart General Hospital Board of Management held in October, the rules committee brought up a report recommending several alterations and additions to the hospital rules and regulations. It was recommended that medical practitioners sending in their patients for use of X-ray apparatus shall pay to the secretary the sum of 10s 6d in advance for each exposure; that the term of engagement for nurses be altered from three to four years; that out-patients be required to sign a declaration that they are destitute and unable to pay for medical or surgical treatment; that a fee be charged for the treatment of casualty cases. The chairman explained that the recommendation regarding the charge for the use of X-ray apparatus had reference only to people who were not patients at the hospital. An application from Dr. Giblin for permission to attend the out-patient department one afternoon each week for the purpose of treating eye cases was referred to the visiting committee, with power to act.

Women's Hospital, Melbourne.—A proposal to erect an operating theatre at the Women's Hospital has been under the consideration of the building committee of the institution. The operating theatre is urgently needed by the medical staff. It is estimated to cost £400, but the committee have been unable to recommend it, as the institution has no money available. Consideration of the matter has been indefinitely postponed.

Children's Hospital, Adelaide.—The twenty-seventh annual report of the board of management of the Children's Hospital, Adelaide, states that the daily average of inmates and their total number were higher than ever before, although there has not been any exceptional epidemic among children. Patients were sent from places as far apart as Denial Bay on the west coast, Beltana and Hergott in the far north, and the town of Broken Hill. The hospital exists for the whole of the State and not for the city alone. There were 704 patients under treatment, being 98 more than in the previous year, and the daily average of occupied cots rose from under 64 to over 71. The number of cases of enteric fever was 45, and of diphtheria 73, the increases as compared with the figures for 1901-2 being 12 and 16 respectively. The patients discharged as cured were 428, relieved 130, unrelieved 50, and deaths 34. The principal causes of death were tubercular meningitis 11, diphtheria 5, and pneumonia 3. The total number of operations was 527, of which 364 were cases of out-patients. The new cases treated at the outdoor department reached the large number of 1538, being an increase of 324, and an average of 5 per day. The total attendances at the dispensary were 8329, an increase of 944, and a daily average of over 26. Since the hospital was founded the attendances at this department have been 107,372.

Queen Victoria Convalescent Home, Adelaide.—As an auxiliary to the general work of the Children's Hospital, the value of the department is very great. There were 53 cases in all under treatment, and of the 13 cots in the home an average of 10 were constantly occupied. The receipts for the year amounted to £200 7s 11d. The entire expenditure of the establishment for the year was £375 8s 10d, of which £175 has necessarily been provided for out of the general funds of the hospital.

THE BATTLE OF THE CLUBS.

INVERELL.

In consequence of a dispute between the local Oddfellows' Lodge and the medical practitioners in Inverell, attempts were made by the lodge to secure another medical practitioner as lodge surgeon. In December 1902, the lodge secured the services of a person whose name appears on the register of unqualified practitioners under clause 3, Act vii., 1900, as John Krueger, and who practised in Inverell as Dr. Krueger-Kelmar. This gentleman has received notice that his services will not be required after December next. If then no agreement can be arrived at between the local medical men and the lodge, it is probable that an attempt will again be made to secure the services of some other practitioner. We would strongly urge any medical man who may contemplate accepting this appointment to communicate first with the medical men in Inverell, so that he might be fully informed of the actual state of matters medical in that town.

Prevention of Consumption.—At a public meeting to inaugurate the South Australian branch of the National Association for the Prevention of Consumption, held in Adelaide, his Excellency the Governor (Sir George Le Hunte) presided, and said they had met to inaugurate a branch of an army—a crusading army—which had for its object the prevention of an enemy—very sure though very subtle—known to them by the name of consumption. In this favoured climate they could hardly appreciate what the frightful ravages of the disease were in the northern climes. Dr. J. C. Verco said, unfortunately, the need of such an association was only too palpable.

PRACTICES FOR SALE.

N.S.W.—Practice in nice town; a good district and climate, free from drought; £500. Price, £100.

N.S.W.—Unopposed Practice near Sydney; cash takings over £400. Practice, Furniture, Horse, etc., £100. A purchaser willing to take this can be financed.

TAS.—Opening for a Surgeon who will work with resident. Estimated income, £1000. Good district.

N.Z.—Practice, returning £2500 (exclusive of private hospital); expenses not more than £400. Price, £800.

QUEENSLAND.—Practice on Coast. Appointments. £375. Returns about £1000. Price, £350.

MR. F. W. LOXTON,
16 O'Connell-street, Sydney.—[ADVT.]

Digitized by Google

MEDICAL NOTES.

Charitable Bequests and Donations.—Mr. James Cuming, of the firm of Messrs. Cuming, Smith and Co., chemical manufacturers, Melbourne, has presented £1000 to the funds of the Williamstown Hospital. He made a similar gift to the Melbourne Hospital a few days ago.—By the will of the late Thomas Baker, an ex-constable of police, the Ballarat Hospital will benefit to the extent of £2750, whilst the Ballarat Orphan Asylum will receive a legacy of £1500 and 77 acres of good land.—Some Chinese citizens, representing the Lin Yik Tong Society in Sydney, have made the following donations:—Sydney and Royal Prince Alfred Hospitals, £60 10s and £35 10s respectively; Blind Institution, Benevolent Asylum, Children's Hospital, and Royal North Shore Hospital, £10 10s each; Randwick Asylum, St. Vincent's Hospital, Ashfield Infants' Home, Convalescent Home, Consumptives' Home, and Civil Ambulance and Transport Brigade, £5 5s each.—The Alfred Hospital, Melbourne, has received the sum of £333 6s 3d under the will of the late Sophia Matilda Low.

St. Luke's Day at St. Andrew's Cathedral, Sydney.—The festival of St. Luke was celebrated at St. Andrew's Cathedral by a special service held at 11 a.m. His Excellency the Governor (Sir Harry Rawson), Lady Rawson, Miss Rawson, and suite were amongst those present. In accordance with a custom followed at St. Paul's Cathedral, London, where a large number of medical men attend the service in academic costume every year, his Grace the Archbishop (Dr. Saumarez Smith) invited the doctors of Sydney and suburbs to be present, and a considerable number availed themselves of the privilege. Canon Hey Sharp preached the sermon, and referred to the large service held every year at St. Paul's, London. He then quoted the life of the eminent physician, Sir James Paget, as proof of the fact that a man whilst following his profession devotedly could serve God and the Church.

Hospital Saturday Fund, Sydney.—At the 108th meeting of the board of directors of the Hospital Saturday Fund, the advisability of the association initiating a series of summer night outdoor entertainments in various suburbs where no indoor household collections are made was discussed, and, whilst the opinion was held that the fund might be materially benefited by such methods if carried out by individual effort, the board decided to adhere to its established policy of encouraging direct contributions in aid of the medical charities it supports, and not to undertake anything of a speculative character.

The committee of the Royal North Shore Hospital has passed a resolution "that donors of £50 and upwards, during one year, be designated benefactors, and that their names be from time to time inscribed upon a marble tablet to be erected in the main hall of the hospital.'

The smallpox epidemic at Launceston is reported to have cost £18,600 up to date, and at the end would probably cost £20,000.

Queen Victoria Memorial Fund.—A meeting of the executive committee of this fund was held at the Town Hall last month to consider the question of closing the fund. The chairman (Professor Anderson Stuart) reminded members that the fund was instituted for the purpose of furnishing and equipping the new Queen Victoria Memorial Pavilions at the Royal Prince Alfred Hospital, which were being erected by the State. It was anticipated that at least two floors in each pavilion would be available within a few months, and the time had arrived to begin the work of preparation for their occupation, as a result of which purchases of the latest furniture and hospital appliances would be necessary almost immediately. The balance-sheet showed the following figures: Receipts: Donations received and banked, £1[illegible]. At the 9d; donations promised and regarded as good, £[illegible] of the interest accrued on fixed deposits, £630—total, £[illegible]tober, 10s 9d. Total expenditure, £249 11s 8d. Sir [illegible] John Graham moved, and Mr. Hugh Dixson second[illegible]5000 "That the amount at the credit of the fund be han[illegible] over to the directors of the Royal Prince Alfred Hosp[illegible] in trust, with the stipulation that the amount be [illegible] pended only for the furnishing and equipment of t[illegible] Queen Victoria Memorial Pavilions, and that separa[illegible] accounts be kept of the fund, to be duly audited, an[illegible] published annually with the balance-sheet of the hospital; and that, subject to the acceptance by the directors of the trust, on the conditions stipulated, the fund be closed, and the hon. treasurers be authorised to make necessary arrangements for transferring the amounts at credit to the hospital authorities." This motion was adopted, and after a vote of thanks had been passed to the ladies' committee, the chairman, hon. treasurers, hon. secretary, and the press, the proceedings terminated.

Hospital Collections in Melbourne.—The annual hospital collections in Melbourne were somewhat interfered with by wet weather. The total collected was £3736, compared with £4422 for last year. Of the churches the following were the chief contributors:—Presbyterian, £1058; Church of England, £829; Roman Catholic, £688; Methodist, £412; Baptist, £189; Congregational, £183. Additional contributions to the Hospital Sunday Fund which were received since brought the total up to £4967. The penny a week contributions during the year of employees of 14 city firms yielded the sum of £547 15s 7d.

Home for Cripples.—Excellent results are being achieved at the home supported by the James Brown Trust, at Estcourt House, near the Semaphore, Adelaide, where aged blind and children who are crippled are cared for. Regarding the latter, the chairman of the committee states that some patients who on admittance to the home were pronounced to be permanently unable to move their limbs are now able to freely walk about, and will, in course of time, be in a position to follow some occupation by which to earn a livelihood for themselves.

Training of Nurses at the Melbourne Hospital.—It was recently decided by the committee of management of the Melbourne Hospital that all nurses before leaving the institution should be given a course of lessons in sick-room cookery. Twelve of the nurses who are about to complete their training at the hospital are now attending the Working Men's College for the purpose of receiving instruction, a special course having been arranged for them. The lessons are demonstration and practical alternately, and comprise instruction in the way of preparing and cooking fish, soup, light savoury foods, jellies, puddings, and drinks.

Queen Victoria Homes for Consumptives.—In response to a deputation from this institution, Lady Rawson called a meeting at "Cranbrook" of the Lady Mayoress of the city and the Mayoresses of the suburbs, together with members of the executive committee of the homes and other ladies interested in the work, on November 13th. His Excellency Sir Harry Rawson presided, and there was a good attendance of ladies, and it was agreed that the Mayoresses of the suburbs should endeavour to enlist the sympathies of the ladies of the suburbs to secure additional annual subscribers to the funds. A committee was appointed to make arrangements for holding a ball next May in aid of the funds.

Digitized by Google

PERSONAL ITEMS.

B. Kennedy, of Hergott, S.A., has returned to alia, via Vancouver, from a holiday trip to Eng- Canada and the United States. Dr. Kennedy is a dian, from near Niagara Falls.

Dr. A. F. Smith, who recently resigned the charge of Bulong Hospital, West Australia, has purchased r. J. F. Souter's practice at Uraidla, near Adelaide. On leaving Bulong, Dr. Smith was presented with a testimonial.

Dr. J. C. Verco has been elected president of the Royal Society of South Australia.

Dr. G. H. Abbott, of Stanmore, Sydney, has been presented with an illuminated address and a testimonial on relinquishing his position as medical officer to the Loyal Petersham Lodge, M.U.I.O.O.F.

The election of the Hon. Dr. Charles Kinnaird Mackellar, M.L.C., of Sydney, to fill the vacancy in the Senate created by the retirement of Mr. R. E. O'Connor, has been received with considerable satisfaction, and it is generally conceded that he will prove a worthy and capable successor to Senator O'Connor.

Dr. Gerard Smith, late of Hackney, London, has been appointed Health Officer for Hobart.

Dr. William Brown is leaving Dunedin to settle for some time in Rotorua, N.Z.

Dr. J. C. Verco has presented to Adelaide University a valuable collection of fossils covering 500 species.

Dr. A. H. Fieldstadt has commenced practice at Rotorua, N.Z.

Dr. A. A. King, of West Maitland, N.S.W., while riding his motor cycle recently, came into collision with a mob of horses, one of which kicked him off his motor. He escaped with severe abrasions, and was removed to the Maitland Hospital, and subsequently to his home.

At a meeting of the committee of the Parramatta Hospital, N.S.W., last month, reference was made to a recent lawsuit, in which damages were claimed by a patient from Dr. Bowman, one of the honorary medical officers of the institution. A vote was carried unanimously, expressing sympathy with Dr. Bowman and unshaken confidence in him.

As an outcome of the meeting of sympathy with Dr. Bowman, a committee appointed by the meeting waited upon him and presented him with a handsomely illuminated address, bearing about 250 signatures. The presentation was made by Archdeacon Günther, who assured the recipient of the great regard in which he was held by his friends, as was evidenced by the numerous signatures attached to the address. Dr. Bowman, in thanking the subscribers to the address, assured them that he would cherish it for the kindly sentiments and warm expressions of confidence therein contained.

Dr. Humphrey Turkington, of Merriwa, N.S.W., was entertained on October 20, and presented with a gold watch prior to his departure from the district.

Dr. Arthur Grieves, late of Wahroonga, has succeeded to the practice of Dr. Royle at Burraga, N.S.W.

Dr. W. H. Crago has been appointed Government representative on the board of directors of the Benevolent Society of New South Wales.

Dr. Charles F. Scott has commenced practice in Gisborne, N.Z.

Dr. Marsack returned to Auckland on the 29th ult. from his visit to Australia. His health is so far recovered that he is able to resume practice.

Dr. Stanley Batchelor, of Dunedin, met with an accident last month, which resulted in one rib being fractured. He was cycling along the road in Kensington when he collided with a tramcar. He has now recovered and resumed practice.

Dr. E. E. Bloomfield was married this month to Miss May Sinclair, daughter of J. R. Sinclair, Esq., of Dunedin.

Dr. Colquhoun returned to Dunedin recently, after having been away for about eleven months, visiting Africa, Europe, Great Britain and America.

The remains of Dr. Shand, of Middleton, South Australia, have been incinerated at the Adelaide crematorium, in accordance with a request made by the deceased shortly before his death. Dr. Shand is the first European cremated at the local institution, the only other body having been that of a Sikh.

Dr. J. J. F. Bourke has resigned the appointment of medical officer at Hughenden, Queensland.

Dr. W. Ramsay Smith has resigned his appointment as physician to the isolation wards at the Adelaide Hospital.

Dr. Lane, of Inverell, N.S.W., has left for a holiday trip. Dr. F. S. Stuckey is his *locum tenens*.

Dr. Ekin, of Mosman, Sydney, has left for England on a tour. Dr. Mason, late of Petersham, has taken over his practice.

Mr. Thomas Evans, who recently resigned the office of senior ophthalmic surgeon to the Sydney Hospital, was presented by his late colleagues with a handsome silver bowl as a token of their personal esteem and of their appreciation of his services to the hospital for the last 21 years. It may be stated that Mr. Evans has no intention of giving up work, but will carry on his private practice as usual.

MEDICAL APPOINTMENTS.

NEW SOUTH WALES.

Armstrong, W. G., M.B., Ch.M. (Syd.), to be Lecturer on Public Health, University of Sydney, *vice* Dr. W. H. Goode, deceased.
Beattie, J. A., L.K.Q.C.P., L.R.C.S. (Irel.), to be a member of the Medical Board, *vice* Dr. W. H. Goode, deceased.
Conroy, J. B., M.B., to be Junior Medical Officer, Department of Lunacy, *vice* Dr. Ludowici, resigned.
Davidson, A., M.D., to be Senior Medical Officer, Lunacy Department, on probation, *vice* Dr. H. C. McDouall.
Foreman, J., M.R.C.S., (Eng.), to be a member of the Board of Health, Sydney, *vice* Dr. Goode, deceased.
Hood, A. Jarvie, M.B. Ch.M., (Glas.), to be visiting Medical Officer to the Lunatic Asylum, N.S.W., *vice* Dr. Goode, deceased.
Jamieson, Sydney, B.A., (Syd.), M.B., Ch.M. (Edin.), to be Lecturer in Medical Jurisprudence, University of Sydney, *vice* Dr. W. H. Goode, deceased.
Jones, R. H., M.B., Ch.M. (Melb.), to be Hon. Assistant Ophthalmic Surgeon at the Sydney Hospital.
Langton, W. B., M.D., to be Junior Medical Officer, Department of Lunacy, *vice* Dr. Anderson, resigned.
McDouall, H. C., M.R.C.S. (Eng.), L.R.C.P. (Lon.), Senior Medical Officer, Hospital for the Insane, Callan Park, Sydney, to be Acting Medical Superintendent at that Institution, *vice* Dr. Chisholm Ross, on leave of absence prior to resignation.
Moffitt, Charles Gordon, M.R.C.S., L.R.C.P., D.P.H., (Lon.), to be Senior Medical Officer, Department of Lunacy, *vice* Dr. Reid, transferred.
Woodward, E. A., M.B., C.M., (Edin.), to be Government Medical Officer and Vaccinator at Wyalong.

Digitized by Google

SOUTH AUSTRALIA.

Loria, August, M.D., of Adelaide, to be a Public Vaccinator.

QUEENSLAND.

Nicoll, James Robert, M.B., Medical Superintendent, Hospital for the Insane, Toowoomba, Queensland, to be Acting Inspector of Asylums for the Insane, during the absence of the Inspector.

TASMANIA.

Morgan, Edward H., M.R.C.S., to be a Member of the Board of Advice for Hamilton School District, *vice* Dr. John Stewart, deceased.

WEST AUSTRALIA.

Browne, Dodwell, M.B., Ch.B., (Resident Magistrate, Wyndham) to be a Visiting Justice, Wyndham Gaol.

Harrison, W. A., M.B., Ch.M. (Edin.), to be District Medical Officer, Chairman of Quarter Sessions, Resident Magistrate and Magistrate of Local Courts at Esperance, Quarantine Officer for the Port of Esperance, and Public Vaccinator for the urban and suburban districts of Esperance.

Hungerford, Lancelot M. T., L.M.R.C.S., to be District Medical Officer, Perth, *vice* A. J. H. Saw, resigned; from last October, 1903.

Macmillan, J. G., M.B., Ch.M. (Edin.), to be Officer of Health to the Kalgoorlie and Boulder District Board of Health.

O'Connor, M., M.B., Ch.B., (Dub.), to be Officer of Health for Perth.

Randell, A. F., M.B., B.S., to be Officer of Health, Belmont, *vice* Dr. Brown, resigned.

NEW ZEALAND.

The undermentioned persons have been appointed Public Vaccinators for the districts set opposite their names, viz.:—

Frazer-Hurst, Livingstone, M.D. (Durham Univ.), 1900, for the District of Tauranga.

Low, Charles, B.M., M.S. (Edin.), 1881, *vice* Drs. Peter and Florence Keller, Huntly

Maddison, Jessie Clarkson, MB., Ch.B. (Univ. N.Z.), 1902, Christchurch.

Mussen, Phillip Johnson (registered under Wellington Medical Board Act, and "Medical Practitioners Act, 1867"), Waitara.

Wheeler, Charles Henry, M.D., M.S., 1881, R.C.P.S. (Irel.), 1893, etc., Wairoa.

PROCEEDINGS OF AUSTRALASIAN MEDICAL BOARDS.

NEW SOUTH WALES.

Bolger, Patrick Thomas, L. 1886, F. 1894, R.C.S.I., L.K.Q.C.P.I., 1896.

QUEENSLAND.

Bourne, Eleanor Elizabeth, M.B., M.Ch. (Syd.), 1903.
Marchesini, Giuseppe, M.D., Ch.D. (Siena), 1900.

TASMANIA.

Smith, Gerard Henry, M.R.C.S. (Eng.), 1876, L.S.A. (Lond.), 1896.

BIRTHS, MARRIAGES AND DEATHS.

BIRTHS.

DEY.—On October 5th, 1903, at the surgery, Wilcannia, N.S.W., to Dr. and Mrs. Robert Dey—a daughter.

FLETCHER.—On November 2nd, at Holcombe House, Lygon-street, Carlton, Victoria, the wife of Dr. A. A. Fletcher—a daughter.

JUTTNER.—On October 22nd, at Paranook, Tanunda, South Australia, the wife of Dr. F. Juttner—a son.

KELLY.—On October 13th, at Nappa-Merri, Echuca, Victoria, the wife of Mr. F. Kelly, M.B., Ch.B.—a daughter.

SCOTT.—On October 3rd, at "Braid," Auburn-road, Auburn, Victoria, the wife of J. Alexander Scott, M.B., M.S.—a son.

SPARK.—On September 29th, at her residence, Stockton, N.S.W., the wife of E. J. S. Spark, M.B.—a daughter.

MARRIAGES.

BLUE—HUTCHINS.—On September 2nd, 1903, at St. Jude's Church, Randwick, Sydney, by the Rev. William Hough, Archibald Irwin Blue, M.B., Ch.M., son of the late Mr. Neil Blue, of Maryborough, Queensland, to Maude Howard, daughter of Richard Hutchins, Esq., Randwick.

LEGGE—BLAKENEY.—On September 3rd, at the Cathedral, Melton Mowbray, England, by the Rev. Richard Blakeney (cousin of the bride), Sydney Condon Legge, M.D., to Louise Grace, daughter of the late W. T. Blakeney, Registrar-General of Queensland.

PARK—ROBERTSON.—At Balmain, Sydney, on October 17th, Joseph Keith Park, M.B., Ch.M., of Helensburgh, New South Wales, son of John Park, of Balmain, to Joanna Millar, second daughter of the late Mrs. D. A. W. Robertson, of Helensburgh.

TEAGUE—ROBERTSON.—On September 16th, at St. John's Church, Kalgoorlie, Western Australia, by the Ven. Archdeacon H. Griffiths, D. Gilbert M. Teague, M.B., Ch.M. (Edin.), to Agnes, eldest daughter of D. S. Robertson, Porter-street, Parkside, South Australia.

DEATHS.

GOODE.—On October 15th, 1903, at 159 Macquarie-street, Sydney, William Henry Goode, M.D., R.N., eldest son of the late William John Goode, C.E., Fenglas House, Dublin, aged 63 years.

PALMER.—On October 23rd, at No. 2 Hile-terrace, Esplanade, St. Kilda, Victoria, George Langlands Palmer, M.B. *et* Ch.B. (late of Ararat).

BOOKS RECEIVED.

Golden Rules for Diseases of Infants and Children. By Geo. Carpenter, M.D. (Lon.), M.R.C.P. Bristol: J. Wright and Co. London: Simpson, Marshall & Co., Ltd. Price, 2s.

Manual of Practical Anatomy. By D. J. Cunningham, M.D., D.Sc., F.R.S., Professor of Anatomy in the University of Edinburgh. Vol. II. Thorax, Head, and Neck. Third edition. Edinburgh and London: Young T. Pentland. 1903. Price, 12s 6d. Sydney: Angus & Robertson.

Home Nursing By Bernard Myers, M.D., Lecturer and Surgeon to St. John's Ambulance Association. London: Baillière, Tindall & Cox. Sydney: L. Bruck. Price, 2s 6d net.

Reports from the Pathological Laboratory of the Lunacy Department, N.S.W. Vol. I., Part I.

Aids to Physiology. By P. T. B. Beale, F.R.C.S. London Baillière, Tindall & Cox, 8 Henrietta-street, Covent Garden 1903. Price, 3s 6d. Sydney: L. Bruck.

A Practical Text-Book of the Diseases of Women. By A. H. N. Lewers, M.D. (Lond.), F.R.C.P. (Lond.). Sixth edition. London: H. K. Lewis, 136 Gower-street, 1903. Price, 10s 6d.

Modern Methods of Surgery of Paralyses, with special reference to Muscle-grafting, Tendon-transplantation and Arthrodesis. By A. H. Tubby, M.S. (Lond.), F.R.C.S. (Eng.), and Robert Jones, F.R.C.S.E. London: Macmillan & Co., Ltd. 1903. Price, 10s.

Catechism Series Physics. Part I. Edinburgh: E. & C. Livingstone. 1s. net.

LETTERS AND OTHER COMMUNICATIONS HAVE BEEN RECEIVED FROM:—

Dr. A. E. Perkins, Sydney; Dr. H. Russell Nolan, Sydney; Mr. L. Bruck, Sydney; Dr. A. B. Brockway, Brisbane; Dr. S. Jamieson, Sydney; Dr. Eric Sinclair, Sydney; Hon. Sec. Civil Ambulance and Transport Brigade of N.S.W., Sydney; Dr. Francis Hare, Brisbane; Dr. E. S. Hawthorne, Mudgee; Dr. Richard Arthur, Sydney; Dr. Stewart, Rockhampton; Dr. Gunson, Adelaide; Mr. Faulding, Adelaide; Dr. Abramowski, Mildura, Vic.; Dr. Todd, Adelaide; Dr. Bryant, Williamstown, Vic.; Dr. Lendon, Adelaide.

HUDSON'S "EUMENTHOL" JUJUBES (Registered) are a Gum Jujube containing the active constituents of well-known Antiseptics, Eucalyptol, Thymus Vulg., Pinus Sylvestris, Mentha Arv., with Benzo-Borate of Sodium, etc., and exhibit the antiseptic properties in a fragrant and efficient form. Sold by all chemists; tins, 1s 6d. Are Antiseptic, Prophylactic, reduce Sensibility of Mucous Membrane. Mr. W. A. Dixon, F.I.C., F.C.S., Public Analyst of Sydney, after making exhaustive tests, says:—"There is no doubt but that 'Eumenthol' Jujubes have a wonderful effect in the destruction of bacteria and preventing their growth. . . . I have made a comparative test of 'Eumenthol' Essence and Creosote, and find that there is little difference in their bactericidal action."—[ADVT.]

Digitized by Google

AUSTRALASIAN MEDICAL GAZETTE.

ABDOMINAL OPERATIONS DURING PREGNANCY.

By E. T. Thring, F.R.C.S. (Eng.), Sydney.

EVERY medical man, whether engaged in general practice or in doing abdominal surgery, has probably met with instances of serious disease of one or other of the abdominal organs, complicating pregnancy. If, however, I may judge from my own experience, first of some years of general practice, and subsequently of ten years of abdominal surgery, such cases as urgently require operative interference are less common than one might *a priori* have expected. Probably the most frequent complication of the kind occurring during pregnancy (or perhaps it would be more correct to say that the pregnancy complicates the previously existing condition) is either an ovarian cyst, or fibro-myoma of the uterus. Most surgeons who do much abdominal work have been at some time or another called upon to remove such a tumour or tumours, which would otherwise obstruct labour. In this country (Australia) one occasionally meets with instances of hydatid cysts occupying the pelvis, which call for treatment in the same way. I have seen cases of renal calculus which, by causing symptoms, were discovered during pregnancy, and the question had to be decided as to whether immediate removal should be practised or delayed until after confinement.

In one instance I have been called upon to deal with a carcinomatous growth of the gut, causing obstructive symptoms. We may roughly classify all the instances above referred to as *mechanical* conditions, and each case must be judged upon its merits. There is, however, an entirely different class of cases, which, fortunately, is not commonly met with during pregnancy—I mean those instances in which an acute infective process attacks certain organs, such as the gall-bladder and bile ducts, the vermiform appendix, and, more rarely still, the Fallopian tubes.

Under such conditions, *i.e.*, an acute infective cholecystitis, an acute appendicitis, or an acute infective salpingitis, are we to wait, temporise, and trust that the acute symptoms will subside and permit the pregnancy to terminate normally? or should we deal at once with the pathological condition, removing the cause by operation, and leaving the physiological condition to go on to its natural ending? Comparatively recently I have, in my private practice, had to deal with a case of acute gangrenous appendicitis in a woman six months pregnant, and also an instance (the only one I have ever seen of the kind) of double pyo-salpinx in a woman three months pregnant. A short account of each case, together with an instance of double ovarian dermoid cysts, removed during pregnancy, and also presenting unusual features, is given.

Not so very many years ago it was generally held that surgical interference with pregnant women was to be avoided under almost all circumstances. Even now, one meets instances in which pregnant women, who are suffering agonies from neuralgia, induced by carious teeth, are solemnly warned that the operation of extraction or "stopping" will probably induce premature labour, and they are left to go on with a prolonged pain and discomfort, which might easily be removed without any untoward result. It is only of late years that the safety and generally good results of major abdominal operations in pregnant women have been demonstrated. I do not mean that we should choose to operate during pregnancy if it can with safety be avoided. But in such instances as the acute infective conditions above referred to, which in themselves threaten life, there can, I think, be no doubt as to the advisability of operative interference. This fact was particularly brought home to me by the case of a gangrenous appendicitis recorded below. This patient had been seen by a surgeon and a physician, both of large experience, and for whose opinion I have the greatest respect; but because the second and third attacks of appendicitis occurred after the commencement of pregnancy, these gentlemen negatived operative interference, and advised waiting. This was, I believe, a decided error in judgment. The verdict should have been reversed. Had this been so, the patient would have been saved great risk to life, for, although she did recover perfectly, and the pregnancy was in no way interfered with, the risk which both she and her child ran was infinitely greater than it

Digitized by Google

would have been had the operation been done in the "quiet interval" after either the second or third attack.

With regard to the case of double pyosalpinx, we had no choice. In this case, however, the pregnancy has been in no way interfered with, and is now approaching its termination, apparently normal. The fœtal heart sounds can be heard and the movements felt.

The conclusion, therefore, to which I think we must come is that all cases of acute disease, involving either the appendix vermiformis, the Fallopian tubes, or the gall-bladder and bile ducts, during pregnancy, should be treated as though the pregnancy did not exist. By so doing I believe we shall be acting in the best interests of our patients and their unborn children also. I do not propose now, at all events, to refer at length to those cases which I previously spoke of as *mechanical* complications during pregnancy. It has been abundantly demonstrated that the operations both of ovariotomy and myomectomy can be safely done on pregnant women without interfering with the pregnancy.

Mrs. M., *æt.* 30 years; children, four, at full time; no miscarriages. Patient was seen, in consultation with Dr. McMaster, of Penrith, near Sydney, N.S.W., on December 26th, 1901. She was then suffering from an acute attack of appendicitis; had been ill for five days. There was severe abdominal pain, chiefly localised in right iliac region—marked "guard tension" of abdominal muscles on right side of abdomen. Uterus enlarged to about the size of a six months' pregnancy. The bowels had been that day relieved as the result of an aperient and enema. *Vaginal* examination confirmed the fact of the six months' pregnancy, and showed the presence of an inflammatory mass high up in the right posterior quarter of the pelvis, which was continuous. with a tender swelling in right iliac region. Temperature varied (as shown by chart) between 99° and 103° F. Uterus quiet; no abnormal contractions.

History.—The patient had had three previous attacks of undoubted appendicitis. The first, two months before the present pregnancy, *i.e.*, eight months ago; this was a slight attack; then another more severe attack four months after the first attack, and a third, two months after the second, *i.e.*, when she was about four months pregnant. During the interval between the second and third attacks the patient had consulted a surgeon and a physician in Sydney, and had been advised, *because she was pregnant*, that no operation should be undertaken.

On December 29th, 1901, the patient came to Sydney and was admitted to a private hospital. She stood the journey of 40 miles in the train very well.

Operation, December 30th, 1901.—Under ether anæsthesia, usual oblique incision in right iliac region was made; the deeper layers of the abdominal wall were œdematous (In this instance because of the altered physical conditions due to the pregnancy the incision was not made at the outer border of the rectus sheath, but through the oblique muscles, the fibres of which had to be divided, as simple separation did not give sufficient room.) There were adhesions involving the colon, omentum, small intestine, and appendix. The right half of the broad ligament was greatly thickened and œdematous, as well as the right ovary and Fallopian tube, the ovary being almost black in colour. The appendix when separated and stripped from surrounding adhesions was found to be swollen and gangrenous. It was removed close to the the caput cæcum coli. The right ovary and Fallopian tube were also removed, the separate vessels being picked up and ligatured and the top of the broad ligament overstitched with catgut. A small gauze drain, with gutta percha tissue round the middle portion, was placed in position, and the abdominal incision closed in layers, catgut sutures being used.

Convalescence was quite uneventful, temperature never reaching 100°F.

The pregnancy went on to full time, and the patient was safely delivered of a living child, the line of incision remaining sound.

July 22nd, 1903.—The patient reported herself, and was examined. The abdominal scar is perfectly sound. There is no sign of hernia or stretching of the cicatrix. There is no pain or discomfort, the patient being in perfect health. She is again pregnant from seven to seven and a half months.

Mrs. L., *æt.* 20 years; married 15 months; was sent to me by Dr. Abbott, who attended during her confinement, at full time, on October 10th, 1901. Labour difficult and prolonged. Convalescence delayed; was in bed for one month after birth of child. Suffered from severe abdominal pain; high

Digitized by Google

temperature; there was, in fact, marked peritonitis, the course of which was not apparent at the time, as there was no post-partum sepsis due to infection of the genital tract so far as could be ascertained. Patient was first seen by me on *December 26th*, 1902. She was then complaining of pelvic pain and discomfort. Menses absent; was not nursing child. On examination, chest and abdomen showed nothing abnormal.

Pelvic examination showed uterus to be involuted, in good position. There were adhesions about the *left Fallopian tube* and *ovary*, which was enlarged, and fixed low down in Douglas' pouch. The *right ovary* and *Fallopian tube* were high up, fixed by adhesions at the level of the brim of the true pelvis, making a mass the size of a large hen's egg.

On March 30th, 1903, patient was again seen. She had been "unwell" in January and on February 7th, but not since. On examination, uterus found to be enlarged to about the size of a two months' pregnancy. Uterine appendages as before.

April 28th, 1903.—Uterus still further enlarged. As it was obvious that the fixed mass in Douglas' pouch would interfere with labour, abdominal section was advised, with a view to removal of the two tumours, the intention being to disturb the uterus as little as possible, so leaving the pregnancy to go on.

Operation, May 28th, 1903.—On opening the abdomen anteriorly in the middle line, uterus seen to be pregnant about four and a half months. There were general adhesions between the omentum, uterus and appendages, intestinal coils, abdominal walls, and all about the pelvis. Both ovaries and Fallopian tubes, which were in the positions above described, were separated from adhesions and removed, the tubes being cut through quite at the uterine cornu. The utero-ovarian arch and vessels in broad ligament were cut and tied separately with fine catgut, and the top of broad ligament were over-stitched with fine catgut, from the uterine cornu to the infundibulo-pelvic fold, on each side. On the left side of the anterior abdominal wall, near the internal abdominal ring, was a flattened ovoid mass, about 1½ inches in diameter, firmly attached to the parietal peritoneum; near by were two similar but smaller masses; these were excised and removed. In all the adhesions over the uterus, bladder, etc., were dark brown hairs, about ¾ to 1½ inches long, and on the fundus uteri was a felted plaque of hair attached by adhesions. This was peeled off. The abdomen was closed in three layers with catgut, mattress sutures being used for the anterior layer of rectus sheath, of chromicised gut. No drainage. Patient made an uneventful recovery, and was able to come to my consulting-room to report five weeks afterwards.

On examining the parts removed, both ovaries contained dermoid cysts full of sebaceous material and hair. The right Fallopian tube was completely closed, the left was still pervious. The masses excised from the anterior abdominal wall were all three secondary dermoid cysts, each containing sebaceous material and hair.

July 30th, 1903.—Pregnancy is still going on, and the patient is perfectly well.

History.—Mrs. R., *æt.*,—Married November 25th, 1902; last menstrual period December 18th, 1902. She was first seen as a patient by Dr. Abbott, of Stanmore, Sydney, on January 26th, 1903. For a few days before this she had been feeling faint, feverish, and had had slight nausea and vomiting. On January 26th, 1903, there was slight pain and tenderness about the region of appendix vermiformis, and feeling of nausea. Temperature, 99° F. A few days later the symptoms were the same. On examination of the pelvis there was a slight fulness and swelling posteriorly, and to the left, uterus not easy to define bimanually, but not greatly enlarged.

February 4th, 1903.—The patient was seen by Dr. Abbott and myself. Symptoms and signs were as described above, and the conclusion arrived at was that a pregnancy existed, possibly extra-uterine, on the left side, or that there was a normal uterine pregnancy complicated by a tubo-ovarian mass on the left, in connection with which there had been an attack of pelvic peritonitis. In spite of the somewhat indefinite signs and symptoms, the patient was obviously ill, and it was decided, more especially as it was impossible to exclude a tubal gestation, to operate.

Operation, in private hospital, on February 6th. Abdominal section was performed (Dr. Abbott assisting), no preliminary curetting being done, because of the possible existence of a uterine pregnancy. On opening the abdominal cavity a pregnant uterus was found of a size equal to

Digitized by Google

three months' gestation, together with double pyo-salpinx, the pathological condition being more advanced on the left side than on the right. The adhesions were fairly extensive, and on the right side the vermiform appendix was involved in the inflammatory process. The ovaries were so adherent, œdematous, and involved in the general inflammatory process that they were removed, together with the Fallopian tubes and the vermiform appendix. Each Fallopian tube was excised from the corresponding uterine cornu. The vessels of the brood ligament were picked up and tied separately with fine catgut, and the tops of the brood ligament overstitched with the same material. The uterus was disturbed as little as possible, although considerable manipulation was unavoidable in separating the pelvic adhesions. The pelvis was drained, per vaginam, by means of iodoform gauze, and the abdominal incision closed in layers. The patient made an uninterrupted recovery, and at this date (August 7th, 1903) Dr. Abbott tells me that she is still well, and the pregnancy undisturbed.

On examination of the parts removed, each Fallopian tube was found to contain a considerable quantity of pus. The left tube has leaked at the fimbriated end and so caused the pelvic peritonitis. Unfortunately no bacteriological examination of the pus was made, as by mistake the specimens were removed and destroyed. Since writing the above this patient has been safely delivered of a healthy full-time child.

(Read before the New South Wales Branch of the British Medical Association.)

SOME SURGICAL EXPERIENCES DURING THE SOUTH AFRICAN WAR.

By Major W. B. Nisbet, M.B., C.M. (Edin.), Victoria.

(Abstract.)

After some introductory remarks Dr. Nisbet proceeded:—

Instances of recovery after brain injuries are amongst the most surprising that the war has taught us, and the following are some of my own experiences in this matter:—One case I saw where the wound was in the frontal region recovered perfectly after operation, notwithstanding a large amount of brain tissue had been lost. Another case where the bullet entered just over the parietal eminence, and emerged at a similar point on the other side, made an uninterrupted recovery, though I was not able to operate till 24 hours after the injury, and then it had to be performed under most adverse circumstances in a dirty Boer cottage, with limited antiseptic resources. To these broad rules, however, there are individual exceptions which required to be definitely particularised.

Penetrating wounds of the chest formed a large class, which might have been reduced to something like order. I have seen the following results all follow from penetrating wounds made by the Mauser bullet:—(1) A little dry pleurisy only; (2) pleurisy, followed by simple effusion; (3) hæmothorax, which followed an aseptic course and absorbed; (4) hæmothorax, turning to septic empyema. Nature is nothing if not consistent, and there are distinct reasons for these varying results if we can only find them. Though in chest injuries treatment must always follow clinical symptoms whatever may be the track of the bullet, still prognosis would be guided, and the final disposition of the wounded man be materially assisted, if all cases of this kind had been collected, classified, commented on, and deductions drawn from them.

The two following cases of bullet wounds of both lungs, admitted on the same day under my care at No. 2 General Hospital, Pretoria, present some interesting features:—A trooper of Hussars was shot at about 600 yards by a Mauser bullet, which entered the chest posteriorly, a little external to the base of the left lung, and emerged through the fifth interspace in the right axillary line. He had been about three weeks in a stationary hospital on the lines of communication, had had slight hæmoptysis during the first few days, and slight rise of temperature, but had been practically well for ten days before being transferred to No. 2 by train On the night of admission he was subjectively well. There was dulness over the right lung, and other signs of hæmothorax on the right side. Clinically, there was nothing abnormal on the left side. The day following there was a return of hæmoptysis, considerable cough and rise of temperature, which assumed a hectic type during the succeeding days. The chest was aspirated, as some of the symptoms suggested empyema, but only about 2 oz. of blood-stained serum were drawn off. The temperature, though following the hectic type, gradually fell, and the patient made a protracted but steady recovery, some dulness on the right side only remaining about seven weeks afterwards, when he was sent home. This case corresponds exactly, I believe, to the condition described by Mr. Makins, where he attributes a rise of temperature following upon

Digitized by Google

the removal of a case of chest wound to further hæmorrhage resulting from the journey.

The other case, a colonial, had also been wounded through the chest about four weeks before admission to No. 2 General Hospital. The bullet had passed transversely through both lungs from the left posterior axillary line to its exit at the base of right axilla. Here the left lung was also normal, but the right dull on percussion, and a hæmothorax had evidently formed. Cough was troublesome, but no hæmoptysis at that time. The temperature, normal in the mornings, rose each night to about 100°, and this condition lasted for about three weeks, when signs of profound illness came on, with foul tongue, vomiting and a daily temperature from 102° in the morning to 104° in the evening. The condition for a moment suggested enteric fever, but an exploratory aspiration of the right chest drew off turbid blood-stained serum with most putrid odour. The chest was immediately opened and a portion of rib resected. About two pints of most foul-smelling serum and pus, with much broken-down clot, was evacuated. He made a lingering recovery after a profound and exhausting illness. In his book, Mr. Makins says "he never saw a case of empyema that had never been tapped nor opened." The above shows that such a condition may occur, and points out the possibility of a case of hæmothorax not following an aseptic course to the point of uncomplicated resolution.

The value of radiography in the diagnosis of injuries from bullet wounds cannot be overstated; it entirely revolutionised military surgery, imparting an exactness of diagnosis of the injuries received, and a definiteness of purpose in the operations to be carried out. Instead then of painful and often harmful probing for bullets, the very presence of which was doubtful, we were able, with no risk to the patient, to localise correctly the exact position of the bullet, if present, and estimate at the same time the damage that the bone had suffered. By the help of the Mackenzie-Davidson localising apparatus I was enabled in one case to remove a revolver bullet from the middle of the thigh, 3¾ in. from the skin surface, without any trouble. The bullet had entered below the knee, and without such scientific assistance it would have been impossible to locate it, as there was no symptom of any kind to show in which direction it had travelled. Another case, amongst others, which showed the inestimable value of radiography was a bullet wound of the leg, where the patient had been treated for three weeks in a stationary hospital, which was not equipped with an X-ray apparatus. He was transferred to Pretoria as suffering from a flesh wound only. The patient was quite satisfied with this diagnosis, and walked somewhat lamely into No. 2 General Hospital from the ambulance train. X-ray examination showed a splintered fracture of the tibia, which could never have been recognised in any other way.

The use of the probe, therefore, in recent wounds fell entirely into disuse, and with ordinary aseptic precautions the results obtained in the way of healing could be described as nothing short of marvellous. Surgeons have drawn particular attention to the freedom from asepsis which prevailed both in operative and non-operative wounds, and while the modern high velocity bullet of small calibre is largely responsible for this fortunate state of affairs, still much of it must, without question, be put down to the disuse of the probe, and to the pure atmosphere of the veldt, as well as the treatment being almost entirely carried on in tents. One fact impressed itself on my mind which seems worth recording. In wounds which have become septic from any cause, it is not wise, if operative interference has to be undertaken, to perform the operation too soon after the original wound has closed. Bacteria appear to have the power of remaining imprisoned in a healed sinus, and retaining their pyogenic power for a considerable time after healing is established. They ultimately disappear, of course, but when, it is impossible exactly to say, and therefore a reasonable time ought to be allowed to elapse if the success of the contemplated operation depends on the new wound following a strictly aseptic course. Two cases firmly convinced me of this. One was a private in the East Kent Regiment, who sustained a compound fracture of the femur, about the middle, and was treated in a small stationary hospital near the scene of action. After four months he came under my care with the bone firmly united, but with a small discharging sinus on the outer aspect of the thigh. From the moment he was wounded, total paralysis both of motion and sensation had existed in the leg, below the site of the wound. Reaction of degeneration was showing itself in the limb, and no time was to be lost if restoration of nerve power was to be brought about. The evident diagnosis was that the sciatic nerve had been divided, and an operation for suturing the nerve held out the only hope of recovery. The removal of a few fragments of necrosed bone led to an early healing of the sinus, and an interval of 10 days was allowed to elapse, when the sciatic nerve was exposed below the short head of the biceps on the back of the thigh. I was surprised to find that the continuity of the nerve was intact,

Digitized by Google

but owing to much callus existing on the posterior aspect of the fracture the nerve had to pass at a considerable angle over this, and was also firmly incorporated in dense fibrous tissue covering the callus. Imbedded in the trunk of the nerve, also, was a fair-sized fragment of detached bone. This was removed and the nerve freed in its course. Sensation began to return in the limb in a few days, followed slowly by slight movement, which gave every prospect of improving under Faradic electrisation. The wound, however, suppurated, which would have ruined any operation for nerve suture if it had been necessary. The other case was for refracture of the femur in a gunshot wound just below the trochanter. Union had taken place with great angular deformity, and a shortening of 4¼ inches. Here, also, a recently healed sinus caused suppuration, which very nearly ruined the success of the operation. The result in both these cases I attribute to active measures being undertaken too early, for they were the only ones among a large number of operations in which perfect aseptic results were not obtained. This is a point upon which I think sufficient stress is not laid in recent surgical works, and by attention to it a calamity may sometimes be averted.

The following case shows the critical attitude it is necessary to assume in forming a correct diagnosis of some forms of bullet wound, even when assisted by the most expert X-ray evidence:—A colonial trooper was wounded in the north-eastern part of the Transvaal on May 25th, 1901. Forming one of a small patrol caught at a disadvantage by an overwhelming force of Boers, he was literally "peppered" with bullets for some minutes before timely reinforcements were able to drive the enemy off. Lying in the prone position, he was fired at chiefly from the right flank and right rear, at a comparatively short range. He was wounded through the right arm. Another bullet made a gutter flesh wound transversely across the back at about the level of the tenth dorsal vertebra for about 4½ inches, then appeared to have tunnelled through the flesh for about 1½ inches and emerged; the combination of wounds here taking the form of a note of exclamation lying horizontally, thus :— An illustration of a similar wound over the scapula appears in the work on South Africa, "A Civilian War Hospital," page 161. There was another wound evidently of entrance just below the right iliac crest. After two days in a bullock waggon he had been admitted to a stationary hospital on the lines of communication, where he remained three weeks. There it was decided, on the clinical evidence, that the bullet, which had entered above the right hip, was still in the abdominal cavity, and, as very acute cystitis had supervened, the region of the bladder was supposed to be implicated in the wound. The patient's condition on admission to No. 2 Hospital and coming under my care was urgent, the bladder requiring to void a small quantity of turbid offensive urine every half-hour, day and night. His temperature was hectic, and he was much emaciated from pain and sleeplessness resulting from the bladder symptoms. An X-ray examination of the left hypochondrium was at once made, and the plate examined the same night with a view to early operation the following day. The plate showed what appeared to be a Mauser bullet lying in the left flank, and the diagnosis seemed complete. A careful study of the plate, however, the following morning by daylight, and a comparison with the wounds on the man's body, led to a different opinion, and it was decided that what appeared to be a bullet in the plate was in reality the tip of the eleventh rib, which had been fractured about one inch from the free extremity, and the fragment separated by an interval of about three-eighths of an inch from the rest of the rib. It was necessary to conclude therefore that the wound on the left side was not the exit of the bullet which had made the transverse gutter wound on the back, but the exit of the bullet which had entered through the right ilium. In passing out it had fractured the rib, and in the same locality had damaged the lower end of the left kidney. The cystitis could be explained by the use of the catheter on the field, which had been necessary 24 hours after the injury, for retention, not due to any implication of the bladder in the track of the bullet, but to a reflex paralysis of the bladder from damage to the higher portion of the urinary tract. This diagnosis had to be arrived at in direct opposition to all the evidence the man himself was able to supply, for he stoutly maintained that the bullet, which had entered through the right ilium, had not left the body. The subsequent progress of the case, however, showed the opinion I formed to be correct, and he made a steady recovery. He probably does not realise how nearly he was subjected to an unnecessary operation.

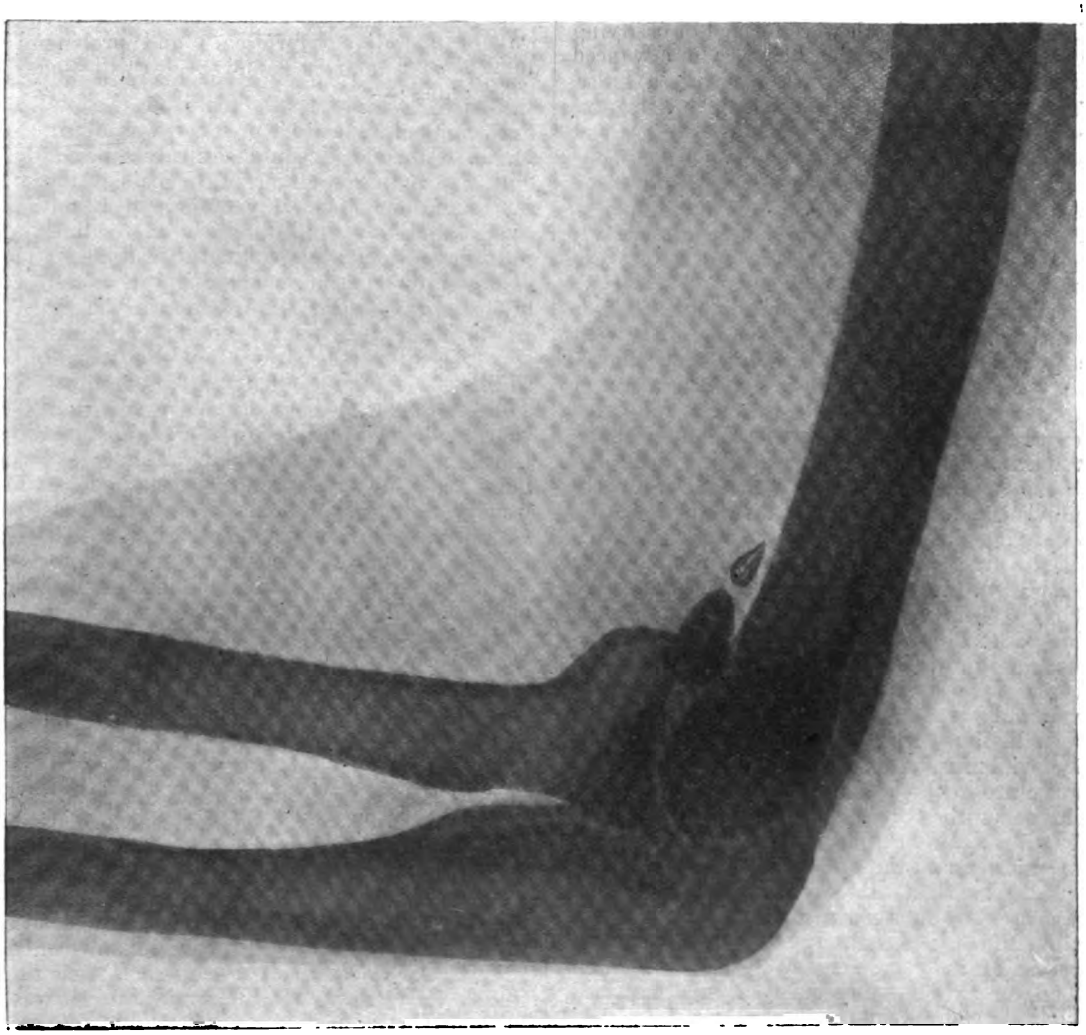
The following case is one of much surgical interest, though not a pure military one.

Patient, a private in the Norfolk Regiment, was well built, of good muscular development, age 34, and had never suffered from any injury or trouble in any joint prior to the present ailment. He had had no accident to the arm, or done anything which would account for the condition.

About the beginning of October, 1900, his right elbow was painful and slightly swollen.

Digitized by Google

By avoiding exertion with that arm, he noticed it got better, but any strain immediately brought back the symptoms. He reported sick first on November 27th, and was admitted to hospital. A few days' rest relieved him, and he was discharged to the convalescent camp on December 3rd, where, having to use his arm, the joint again became swollen. He was then returned as unfit for service, and ordered to the base on December 19th. On the way down country, by train, the arm recovered, and he was ordered back to the front. Exertion again brought back the symptoms, and he was re-admitted to hospital on December 25th. By this time the joint was becoming stiff and very painful on the least exertion. The condition had been fully recognised by X-ray examination by Mr. Lionel Sells, of No. 2 General Hospital, but owing to the possible risk, operation was not advised. He was given light duty about the hospital up to April 9th, when he had to be re-admitted, as the arm was practically useless. The condition on admission was acute synovitis of the elbow-joint. It was hot, swollen and tender. The presence of excess of synovial fluid was evident, and all movements impaired. Pronation and supination were abolished, and the limb constantly kept in a state of semiflexion, only the slightest amount of extension being possible.



SKIAGRAM ILLUSTRATING MAJOR W. B. NISBET'S PAPER.

X-ray examination showed two rounded bodies in the joint in its anterior aspect, just

Digitized by Google

above the coronoid process of the ulna *(vide* plate). Operation had now become imperative, but a fortnight was occupied in reducing the swelling and inflammation of the joint. On April 26th the joint was opened by an incision in front of the inner condyle, carried down below the structures in front of the joint, and the capsule and synovial membrane opened. Two bodies immediately slipped out, the larger being about the size of a bean, the other about half that size. Both were formed of ossifying cartilage, the ossification being so far advanced that they would not cut readily with a knife. The joint was not explored further, the two structures corresponding in every way to those shown in the X-ray photograph. The wound healed perfectly, no dressing being required till the eighth day, when the sutures were removed. About the 21st day, the wound being soundly healed, massage and passive movement was commenced, but did not give satisfactory results. There was still considerable pain on movement, and a tendency to swell after each attempt. Further X-ray examination showed a third body still in the joint, more to the outer side, being just brought into view (with the fluorescent screen) on rotating the arm. The outline of this third body had been completely hidden by the other two on previous examinations, and the omission of exploring the joint with the finger at the time of the first operation made its presence unsuspected. There was no alternative, therefore, but to open the joint again, which was done on May 28th by an incision close to and parallel with the previous one. On opening the capsule the loose body could be felt with the finger, but was only removed after some traction, owing to adhesions with the inner surface of the synovial membrane. This body was similar in structure to the others, but proved to be the largest of the three. No others could be felt. Healing again fortunately took place, absolutely aseptically, and the wound required no dressing at all after the tenth day. Passive movement was now eminently satisfactory, and was continued for two months, resulting in a perfect return of the movements of flexion and extension, pronation being only slightly impaired, and this gave every prospect of not being permanent. A final X-ray examination showed the joint now normal in all respects, and he was discharged to duty, cured, on August 7th.

The only reference to loose cartilages in the elbow-joint I can find in English literature is contained in the *Medical Times and Gazette*, vol. ii., 1853, by Surgeon Steele, H.M.S. "Arethusa." He quotes two cases successfully operated on, but in both instances only one body was present, and their situation appears to have been on the posterior aspect of the joint. In the case quoted above it was necessary to approach the joint from the front, a locality bristling with surgical difficulties. All the text-books which mention the possibility of the elbow-joint being affected with loose cartilages quote no illustrative case, and the details of operative procedures given gradually drift into descriptions which apply to the knee-joint only.

The following case shows how much in the way of operative interference and prolonged anæsthesia a man in sound health will sometimes stand:—

R.C., aged 22, a Boer prisoner, was admitted to No. 2 General Hospital on July 6th, 1901, with a pulsating swelling in Scarpa's triangle. He was wounded on May 30th near Carolina by a Lee-Metford bullet, which entered the left buttock two inches above the tuber ischii, and emerged towards the inner side of the anterior aspect of the thigh, slightly above the apex, but to outer side of Scarpa's triangle. Pulsation was present in the arteries of the foot, but slightly less forcible than on the right side. The swelling was about the size of an egg, was sharply defined, pulsated, and a bruit could be heard on auscultation over it. The case was kept under observation for seven days, with perfect rest, at the end of which time the swelling had obviously increased in size. There was no œdema or venous congestion of the limb. Operation was advised, and performed on July 13th.

An elastic tourniquet being placed round the groin, an incision was made along the inner edge of the sartorius muscle, similar to that for ligature of the superficial femoral. The inner edge of the sartorius was easily defined, when it was found the belly of the muscle, at that spot, was occupied by a fusiform pulsating swelling, with a thin bluish black encapsulating membrane round it, only a thin layer of muscular tissue remaining over it. Slight adhesions between the lower surface of the muscle and the underlying structures were easily detached except at one central point, where it was firmly adherent to the sheath of the superficial femoral vessels. In trying to differentiate this it was ruptured, and blood was seen to flow from a hole in the superficial femoral artery, this representing the track of the bullet wound. The vessel was isolated above and below with some difficulty, owing to its being surrounded by dense cicatricial tissue, and two ligatures applied. The tourniquet being now loosened, profuse hæmorrhage, evidently mixed arterial and venous, still came from the hole in the vessel. The artery was then opened lengthwise between the ligatures, and a small hole in its

Digitized by Google

posterior wall was seen, communicating with the vein, into which a probe could be passed up and down. The vein was then tied above and below, and the tourniquet again experimentally loosened, but the hæmorrhage was still profuse. The tourniquet being tightened, further dissection showed the profunda vein to be closely adherent to the femoral vein, and evidently had been included in the original bullet wound. With some trouble, owing to the depth at which the manipulations had to be carried out, this vessel was ligatured above and below the seat of injury, and the tourniquet again loosened. Free hæmorrhage still took place, so it was decided to tie the common femoral, the patient having lost much blood and the operation being already a prolonged one. It was assumed that the bleeding still present was coming from the wounded profunda artery, but it was impossible to define the lesion with strict anatomical accuracy, owing to the dense cicatricial tissue round the injured vessel and the depth of the wound. An incision was made and the main vessel tied in the usual way, close to Poupart's ligament, the tourniquet being meanwhile retained below the area of this operation. When it was loosened the hæmorrhage was slight, and a pair of forceps on a point still bleeding at the bottom of the wound appeared to arrest it. These were left on, as the patient was much collapsed and exsanguinated, having been two hours and twenty minutes under chloroform. This stage of the proceedings ended at 1.30 p.m., and after being made comfortable in bed everything went on well till about 4.30 p.m., when a superficial examination of the wound showed hæmorrhage was still going on, too severe to be disregarded.

With slight prospect of success, and having obtained permission to amputate (if found necessary), he was anæsthetised again at 5 p.m., and the wound opened. The bleeding was very free, and seemed to come from the depth of the wound at its upper corner, evidently still along the line that the bullet had followed in passing obliquely through the thigh. Much valuable time was occupied in an attempt to localise and secure the bleeding point, which still appeared to be from the profunda artery, though how this could be after the proceedings of the morning it was difficult to understand. The superficial femoral artery and vein and profunda vein were divided between the previous ligatures, and the stump of closely adherent vessels dissected up. The profunda artery was then definitely secured, and the tourniquet loosened. The bleeding was still unchecked. The only conclusion now to arrive at was that the arterial supply of the part was abnormal, or the persistent bleeding was along the bullet track from an injured vessel in the buttock. The patient being in *extremis* no further dissection was admissible, and amputation was decided upon. As rapidly as possible, by lateral skin flaps, in order to utilise the previous incision, the limb was removed about 2½ inches below the trochanter. The previous difficulty could now be explained. In the postero-internal flap was a small cavity filled with old and recent clot. This cavity was under the gluteus maximus, and from it smart bleeding took place on relaxing the tourniquet, which had been retained during the amputation. The sciatic artery had been wounded by the bullet originally, and a small aneurismal hæmatoma formed, which had given rise to no symptoms. The lesion had probably been unimportant until the pressure of the tourniquet, during the earlier operations, had disturbed the clot consolidating round the injured vessel, and it had bled all day, the blood finding its way downwards and forwards along the bullet track into the bottom of the anterior operation wound just below the profunda artery, through the pectineus muscle. The patient's condition was much too serious to justify any attempt to isolate and tie the sciatic artery, so the cavity was tightly packed with iodoform gauze, and he left the table practically *in articulo mortis*, having been nearly five hours under chloroform during the day, and consumed about 2½ lb. of the anæsthetic. Active restorative measures, however, during the night brought about a marked improvement in his condition, and after that he went on well. The wounds became partly septic, which was to be expected after the length of time occupied in the operations, and the variety of the manipulations. With careful attention to dressing, however, rapid healing took place, and no secondary hæmorrhage occurred. From the day of the operation the only antiseptic used was peppermint water, which gave excellent results. The patient was about on crutches on the 21st day. In the carrying of this operation to a successful conclusion I have to acknowledge the valuable counsel and assistance of Colonel Sylvester, R.A.M.C., P.M.O., of No. 2 General Hospital, and another important factor was the admirable way in which the anæsthetic was given by Civil Surgeon H. Wade, who administered it according to the most approved methods of the Edinburgh School.

Reference is made in the above case to the use of peppermint water as an antiseptic. I claim no originality for the idea, as its possible use has been before referred to in text-books and journals, nor do I claim any special advantage for it as an antiseptic over the other recognised

Digitized by Google

members of that class. But when a surgeon is daily engaged in dressing many cases, and performing operations as well, the continual contact of the hands with 2½ per cent. solution of carbolic acid tends so much to harden the epithelium and deaden the sense of touch that any relief in the way of a less irritating antiseptic is worthy of being considered. I gave it an extensive trial during nine months of surgical work at No. 2 General Hospital, both in cases of an aseptic and septic nature, and I am convinced that it is fully equal to, and, in the manner above stated, sometimes superior, or, at any rate, to be preferred to carbolic acid.

Bilharzia Hæmatobia.—I would like finally to refer briefly to a disease which we may regard as a legacy from the South African campaign, and which, unless we are on our guard, may possibly lead to an occasional error in diagnosis. The disease I mean is hæmaturia due to the parasite Bilharzia. Up to the time of the war this disease had been confined to the African Continent, but now that so many Australian troops have returned to their homes, a small proportion of whom have acquired the disease, we may expect that occasionally, in all parts of Australia, medical men may be confronted with cases the correct nature of which will not be recognised unless Bilharzia be kept in view. In the Western Transvaal is a small town called Rustenburg, through which flows a much-polluted stream, the main tributary of the Hex River, which later joins the Crocodile. This spot appears to be the main source of the disease, though it is distributed throughout the whole of Africa in a less prominent way. Now, the country round Rustenburg and the climatic conditions closely resemble what you find in many parts of Australia, and particularly Victoria. We may be justified in assuming, therefore, that contamination of some, at least, of our watercourses may occur from the cases of existing disease which have returned among the troops, and in years to come we may find it firmly established as an endemic disease in Victoria, which would be a calamity for the national health. Our only safeguard appears to be the possibility that the intermediate host which seems necessary in the life history of the parasite may be wanting with us. All the cases I have seen came from the Rustenburg district, and it was round there that many Australian contingents were engaged for several months in the latter half of the war. From time to time, therefore, it is sure to present itself, and I refer to it now to bring it within the list of possible causes, when called on to make a differential diagnosis in a case of hæmaturia. Fortunately, the constitutional effects appear to be of not serious moment in most cases, for I have not found any treatment of the slightest use, with which late writers on the subject also appear to agree. A correct diagnosis can only be made by finding, microscopically, the ova in the urine, which is a comparatively easy matter. It is worth keeping in mind that Bilharzia may also cause hæmorrhage from the rectum, but this is rare, without at the same time hæmorrhage from the bladder.

(Read before the Ballarat Branch of the British Medical Association.)

ACUTE SEPTIC INFECTION OF THE LEFT TEMPORAL BONE, OCCURRING DURING AN ATTACK OF MEASLES.

By W. F. Taylor, M.D., M.R.C.S.E., Etc., Brisbane.

I.L.N., nurse, Lamington Home, Brisbane Hospital, was admitted into the isolation ward on August 25th, 1902. Patient stated that her throat first felt sore on August 23rd. Temperature, m. 100·8°, e. 103° F.; pulse, m. 128, e. 140.

26th.—Complains of headache and pains in body and limbs this morning. In the afternoon a fine, bright red rash appeared on face and body. Temperature, m. 102·4°, e. 103·4 °; pulse, m. 128, e. 140. No appetite; bowels irregular; tongue furred.

27th.—Complained of rather severe pain in left ear, and of a bubbling sound. Throat much better; hands not so swollen or stiff; taking very little nourishment. Temperature, m. 100°, e. 102; pulse, m. 112, e. 112.

28th.—Rash over body very bright this morning. Fairly comfortable until 2 p.m.; felt very giddy, and vomited about six ounces of dark, thick, slimy fluid; left ear discharging a little; not so painful, but rather tender. Taking very little nourishment. Temperature, m. 100·6°, e. 101·8°; pulse, m. 120, e. 120.

29th.—Ear still painful; rash on body fading; taking very little nourishment. Temperature, m. 100·6°, e. 102·2°; pulse, m. 120, e. 104.

30th.—Ear still discharging a little; complained of pain in ear at times; more painful this p.m.; throat much better; taking a very small amount of nourishment. Temperature, m. 99·6°, e. 100·2°; pulse, m. 96, e. 104.

31st.—Seen by Drs. Mayne and Taylor this a.m. Ear examined by Dr. Taylor; ear very

Digitized by Google

painful off and on all day ; ear and surrounding part rather swollen ; taking little or no nourishment. Had chloralamid and pulv. Antikamnia at 7.55 p.m.; slept till 11 p.m., then complained of severe pain in ear ; unable to sleep. Reported to Dr. Mayne. Had hypo. injection of morphia at 12.15 a.m.; slept well after. Temperature, m. 100·4°, e. 100·4°; pulse, m. 96, e. 100.

Sept. 1st.—Ear examined by Drs. Taylor and Mayne this morning. Complained of a good deal of pain all day ; more severe at 9.15 p.m. Had hypo. injection at 11 p.m. of ¼-grain of morphia ; slept well after. Temperature, m. 101°, e. 102·6° ; pulse, m.104, e. 112.

2nd.—Left ear, side of face, and eye very much more swollen this morning. To be prepared for operation (mastoid) at 4 p.m.; slight yellow discharge coming from ear at 3 p.m.; ear and surrounding part very tender. Operated on, under ether, by Dr. Taylor, in isolation ward. Quiet, and sleeping for 45 minutes after operation ; vomited about two ounces of yellow fluid at 5.45 p.m., and at 6.15 p.m. two ounces of frothy fluid ; had a little dry retching at 8 p.m. Had hypo. injection morphia gr. ¼ at 9 p.m.; slept till 11 p.m.; complained of severe pain in back of neck and headache. Injection of morphia repeated at 12 o'clock ; slept well after. Face very much swollen, especially around eyes. Had diphtheria antitoxic serum, 750 units, B. & W. preparation, every four hours. Temperature, m. 101·8°, e. 101·8° ; pulse, m. 120, e. 120.

3rd.—Complained of neck feeling very stiff and slightly painful until wound was dressed. Face and eyes very swollen this a.m. ; swelling considerably decreased after 10 a.m. Wound dressed by Dr. Taylor, assisted by Dr. Mayne ; irrigated with solution of corrosive sublimate, 1 in 2000, syringed with pure carbolic acid, followed by absolute alcohol, and plugged with iodoform gauze, and dry gamgee pad applied. Feeling much better since wound was dressed. Vomited about two ounces of undigested food at 1 p.m., and a small quantity of brownish fluid at 2 p.m.; complained of nausea and flatulence all the afternoon. Wound dressed by Dr. Fearnley at 7.45 p.m.; irrigated with sol. corrosive sublimate, 1 in 2000, and plugged with iodoform gauze, and carbolic, 1 in 40; pad applied. Taking champagne fairly well. Complained of pain in back of neck all the afternoon ; unable to sleep. Had Haust. potass. brom. et chloral, one ounce, at 9.30 p.m.; slept well after 12, rather restless, but not complaining of pain. Potass. brom. et chlor. draught repeated at 1.10 a.m.; slept until 3 a.m., but very restless in sleep. Vomited three ounces of brownish fluid at 3 a.m.; dozing off and on since. Temperature, m. 99·8°, e. 101·8°; pulse, m. 116, e. 120.

4th.—Complained of pain in head and wound early this morning ; left side of face looking very red and more swollen. Wound dressed by Dr. Taylor at 10 a.m.; irrigated with sol. corrosive sublimate, 1 in 2000, and plugged lightly with gauze soaked in sol. mercuric potass. iod., 1 in 2000 ; gamgee pad, wet with same lotion, applied externally. Wound dressed every two hours. A good deal of discharge came through dressings before 10 a.m.; wound not looking so clean this p.m., and very little discharge coming away ; face and neck very tender all round. Had a little dry retching several times during day, last at 3 p.m. Taking a little more nourishment to-day ; seems very depressed, indeed ; complained of pain in wound and headache this afternoon, more severe towards 6 p.m. Had hypo. injection of morphia, gr ¼, at 5.45 p.m.; slept quietly until 11 p.m. Wound was then dressed ; very little discharge. Slept from 12.45 a.m. until 3. Wound dressed at 5.30 a.m., when a good deal of discharge came away ; complained of being very thirsty. Temperature, m. 100·4°, e. 102·4°; pulse, m. 104, e. 120.

5th.—Felt much better this morning until 9 a.m., then complained of pain in left side of face ; face and nose very red, redness extending over to right side of face ; not much pain in wound, but surrounding part very tender, especially upper part of left side of head. Wound dressed by Dr. Taylor at 10 a.m.; irrigated with mercuric pot. iod. lotion, 1 in 1000, other dressing as before ; ichthyol and vaseline, equal parts, smeared over face. Feeling easier and better for some time after dressing wound ; wound dressed by Dr. Taylor at 6 p.m. as before. Has not had any pain in left ear this p.m., but complained of pain in right ear and surrounding parts for a short time after 8 p.m. Wound to be dressed every two hours, night and day, with mercuric pot. iod. solution, 1 in 1000. Slept well early part of night, but very little after midnight ; complained of pain in right side and back of head ; had dry retching off and on through night ; still complained of thirst ; 4 grs. of quinine, 6 grs. of phenacetin and 2 grs. of caffein to be given every four

Digitized by Google

hours, in addition to the diphtheria antitoxic serum. Temperature, m. 102°; pulse, 130; evening temperature and pulse not recorded.

6th.—Complained of pain and tenderness all over head, more so on right side and neck this morning. Not feeling nearly so well; seems rather depressed. Seen by Dr. Mayne at 7.15 a.m., and by Drs. Taylor and Mayne at 10 a.m. Wound dressed then by Dr. Taylor as before; two-hourly treatment to be continued while awake. A small piece of slough came away with irrigation this p.m.; wound looking a little cleaner; nose and upper lip much more swollen; redness spreading over face and forehead; repainted with ichthyol and vaseline this p.m.; head and face very tender. Rather restless, and complained of pain in head at 1.30 p.m. Seen by Dr. Mayne at 2 p.m. Had hypo. injection of morphia, ¼-gr., at 2.15 p.m.; slept from 2.45 p.m. until 6 p.m.; breathing seems rather labourerd at times; respirations varying; breath very offensive. Taking very little nourishment. Bowels slightly moved three times; semi-formed, dark slate-colour, very offensive. Mouth very dry; very thirsty. Had a little dry retching several times through the day. Wound examined by Dr. Mayne at 10 p.m. Had hypo. injection of morphia, ¼ gr., at 11 p.m.; slept well after. Temperature, m. 102·4°, e. 102; pulse, m. 130, e. 104.

7th.—Complained of back of neck and right side feeling very stiff this a.m.; easier this p.m. Swelling in face considerably less to-day; head and face not nearly so tender; redness fading; feeling much better and brighter. Troubled with flatulence and nausea at times. Seen by Drs. Taylor and Mayne at 10.40 a.m. Wound dressed as before; wound looking cleaner. Face and neck smeared with Lassar's paste. (Pasta Resorcini fortior.) Taking a fair amount of nourishment. Complained of shooting pains in back of head this p.m., and of throbbing pain in wound for a short time after each dressing. Had hypo. injection of morphia, ¼ of a grain, at 10.20 p.m.; slept well until 5.45 a.m. Temperature, m. 101·6°, e. 102·6°; pulse, m. 108, e. 116.

8th.—Wound brushed with pure carbolic acid and afterwards syringed with absolute alcohol. Slept for two hours after having wound dressed. Feeling better to-day Had hypo. injection morphia one-sixth of a grain at 8.15 p.m.; slept well all night. Temperature, m. 99·8°, e. 99·2°; pulse, m. 96, e. 100.

9th.—Wound dressed as before; looking cleaner. Complained of back of neck feeling very sore; looking very red. To be thickly smeared with Lassar's paste. Redness of face extending more to right side. Wound a little painful while being irrigated, but easier afterwards. Slept for two hours this forenoon. Taking nourishment fairly well. Slept well during latter part of night after a hypo. injection of one-sixth of a grain of morphia. Temperature, m. 99°, e. 97°; pulse, m. 96, e. 80.

10th.—Wound dressed as before; very little discharge. Vomited an ounce of brownish fluid at 10.15 a.m. Had a comfortable afternoon, sleeping on and off. Had hypo. injection during night; slept well after. Temperature, m. 97·8°, e. 98·2°.

11th.—Wound dressed as usual; a little more slough coming away when irrigated. Very drowsy; sleeping off and on all day. Taking nourishment well; face and neck only slightly swollen; redness fading away. Slept very well through night.

12th to 25th.—Gradually improving, and feeling much better. Complained at times of pain in wound.

26th.—Wound irrigated with mercuric pot. iod. sol. 1 in 2000, brushed with pure carbolic acid, and afterwards syringed with absolute alcohol, lightly plugged with dry gauze, and dry gamgee pad applied. Not complaining; slept well.

Oct. 16th.—Usual treatment carried out from September 27th until date, when wound was brushed with pure carbolic acid and afterwards syringed with absolute alcohol, then lightly plugged with dry gauze and a dry gamgee pad applied.

20th.—Wound dressed as on the 16th.

Dressed as usual until November 5th, when the wound was brushed with pure carbolic acid, syringed with absolute alcohol, lightly plugged with gauze, and a dry gamgee pad applied. Other treatment continued afterwards. Out on pass occasionally since October 2nd.

When I first saw the patient on August 31st, at 10 a.m., with Dr. Mayne, who was in charge of the case, there was a diffuse inflammation of the external meatus, the swelling of the integument being such as to almost occlude the canal, and render an examination of the tympanic membrane impossible. There was little or no swelling of the auricle or the surrounding parts, a slight discharge, and the

Digitized by Google

pain was much less than it had been. I
her again with Dr. Mayne at ten o'clock on
following morning, and was told that she
had considerable pain in the ear during
previous day and night, at intervals.
integument of the external meatus was
much swollen, and there was a certain amo
of swelling of the auricle and surround
parts. I saw her at 10.30 a.m. on the 2
and was somewhat surprised to find that
swelling had very much increased, and
extended to the side of the face and left

A critical condition had evidently
veloped, and instructions were given to h
the patient prepared for operation at f
o'clock in the afternoon. At this time
swelling of the parts involved had still
ther increased, but careful examination of
internal jugular vein did not disclose
evidence of thrombosis of that vessel.
side of the head had been well shaved,
the skin washed with a disinfectant. An
thesia having been produced by ether, an
cision down to the bone was made, c
mencing from the tip of the mastoid proc
and terminating in front of the pari
eminence. The periosteum and integume
were found to be raised from the bone, t
out surface being about two centimet
thick, and presenting a grayish semi-gelat
ous appearance, and from which there was
serous exudation, and very little bleedi
Owing to the curved nature of the incisi
and the retraction of the soft parts, the auri
fell forwards and downwards, and a c
siderable portion of the external surface
the temporal bone was exposed. By forc
retraction the whole of the external surface
the temporal bone was brought into vie
and was found to present a dull grayi
bloodless appearance. The antrum a
mastoid cells were opened by chiselli
barely a drop of pus being found in one of t
mastoid cells, the cancellous structure of t
bone being friable and easily removed. T
sigmoid groove was opened for about t
and a half centimetres, and the lateral sin
well exposed. It was a question whet
there was thrombosis of the lateral sinus
not, for the colour was normal and the w
had a certain amount of resiliency. Howev
owing to the septic condition of the bone a
soft tissues, exploration of the sinus
puncturing was attended by so much ri
of inoculating the blood contained in it
septic matter, if this had not already
curred, that it was deemed advisable

Digitized by Google

septic matter had already commenced, 750 units of Burrowes and Wellcome's diphtheria antitoxic serum were given by the mouth every four hours, according to the formula of Dr. E Montgomerie Paton, of Kew, Victoria, published in the *A.M.G.* of February 20th, 1902.

The serum could do no harm if it did no good, and the patient was able to retain it better than quinine or iron, the administration of both having to be suspended owing to the nausea created by them. The serum was continued until September 22nd. On the following day I was disappointed to find that the swelling of the eyes and face had not diminished, but had rather increased. Examination of the wound showed the lateral sinus to be contracted, and of a dull slate colour, the lumen being evidently occupied by a clot. There was no attempt at purulent discharge. The bone was dry and of a dull grayish colour, the external table, at all events, being apparently dead. The cut edges of the skin, etc., had not altered in appearance from that of the previous day. The wound was irrigated with a solution of corrosive sublimate, 1 in 2000, subsequently syringed with pure carbolic acid, followed in a minute by absolute alcohol, plugged with iodoform gauze, and a dry gamgee pad applied. The object of applying the pure carbolic acid was to stimulate the bone and skin, etc., to health action, and to destroy any septic matter that might be remaining, and the absolute alcohol was used to limit the action of the carbolic acid. I was first induced to use carbolic acid in this way by reading an article in the *Therapeutic Gazette* of December 15th, 1900, on "The use of pure carbolic acid (95%) in the treatment of mastoid wounds and chronic suppuration of the middle ear." The writer stated that "under its use areas of necrosed bone have taken on a healthy healing process, sluggish granulations have been stimulated into healthy activity, and in many cases secondary operations have been avoided. It has been particularly valuable when used by means of the spray in discharge from the middle ear, many cases of persistent discharge having been entirely stopped." I can endorse all that has been said by the author quoted in favour of this treatment, for I have used it successfully in cases of chronic suppurative discharge from the middle ear, attended with extensive bone disease and exuberant granulations.

On the third day after the operation, the wound was irrigated every two hours with a solution of corrosive sublimate, 1 in 2000, plugged with gauze soaked with a solution of mercuric potassium iodide, 1 in 2000, and a gamgee pad, wet with same lotion, applied. The next day a solution of mercuric potassium iodide (iodic hydrarg. B. W. & Co.), 1 in 1000, was only used, and was continued until the treatment ceased. The erysipelatous condition of the face disappeared in two or three days after the skin had been kept liberally smeared with equal parts of ichthyol and vaseline. The condition of the bone gave rise to considerable anxiety, for extensive necrosis appeared to be inevitable; however, about three weeks after the operation, on close inspection, a few minute red spots were seen scattered over the surface of the bone. These slowly increased in number day by day, until ultimately only a small area about the size of a sixpence and thickness of a wafer, near the centre, was left without any red points. This eventually desquamated, leaving a granulating surface. Prior to the appearance of these small red spots on the external table of the squamous portion of the temporal bone, granulations began to appear at the bottom of the wound, which gradually filled, leaving a small nodule of necrosed bone, which was afterwards removed by a chisel. It was very interesting to watch the gradual absorption of the dead bone and the formation of living bone in its stead. One could imagine that the destructive work of the osteoclasts, followed by the constructive work of the osteoblasts, was visible to the naked eye.

A bacteriological examination was made by Dr. O'Brien, who reported as follows:—"I took some of the pus and made smears of it; this contained no bacilli, but only cocci, numerous staphylococci, and some diplococci, which appeared to have a capsule (pneumococci?) A piece of bone with purulent matter attached was placed in broth, and gave a free growth of staphylococcus pyogenes aureus. I did not subculture to see if albus were present also, as it very probably was."

The present condition of the parts is as follows:—The pinna has been restored to its normal position. The canal of the external meatus, at six millimetres from its orifice, is almost entirely occluded by an osseus growth, there being only a very small opening near

Digitized by Google

the upper part. Behind the pinna is a long, wide, deep cicatrix, with a small fistulous opening at the upper and back part of the concha, which evidently communicates with the canal of the external meatus internally to the growth mentioned, for water can be syringed through. The restoration of hearing is somewhat remarkable, for the tick of a watch which can be heard at a distance of ten inches by the right ear, can be heard by the left at four inches, and air conduction is better than bone. This equal impairment of air and bone conduction would tend to demonstrate that the osseous obstruction in the canal of the external meatus has not materially affected the hearing, and that the middle ear has escaped any serious permanent lesion, some labyrnthal trouble being (according to Rinne's test) in all probability the cause of the impaired hearing. However, considering the serious nature of the affection, the result can hardly be regarded as other than satisfactory.

I have gone somewhat minutely into the treatment of this case after the operation, because I am of opinion that the result was, to a great extent, affected by it. The administration of the diphtheria antitoxic serum may have produced some good effects, but if so they were not marked. It was continued for three weeks—until the patient was well advanced towards convalescence—because I was loth to discontinue its use, under the impression that it might be acting beneficially, and it certainly was doing no harm. The difficulty in the local treatment of a case of this kind lies in the inability to keep up anything like continuous application to the part of an antiseptic solution. No plan of constant irrigation of the wound could be employed without exhausting the patient from want of rest, owing to the constrained position necessary to render it effective, and it was found that free irrigation with an antiseptic solution every two hours, and moist applications, were as much as could be carried out with comparative ease to the patient. The erysipelatous condition of the face which became apparent on the third day after the operation, it was thought, might have been caused by the irrigation of the wound with the 1 in 2000 solution of corrosive sublimate, a solution of mercuric potassium iodide (iodic. hydrarg, Burrows and Wellcome) 1 in 2000 at first, and subsequently of 1 in 1000, was therefore substituted for the corrosive lotion with beneficial results, for the soft parts soon took on healthy action, in which they were no doubt assisted very materially by the application of the pure carbolic acid, as described already, and to this may also be attributed to a great extent the recovery of the necrosed bone. The patient was exhibited.

(Read before the Queensland Branch of the British Medical Association.)

AURAL DISCHARGES.

By W. N. Robertson, M.B., etc., Brisbane.

In choosing aural discharges as a subject for your consideration this evening, I was influenced mainly by the importance of the subject and also by the fact that the condition is of general interest. The symptom, for it is but a symptom, is lightly treated by the public, and, I fear, also by many in the profession. A distinguished aurist is credited with the remark that he would rather have a dynamite cartridge in his ear than a purulent discharge. I would not go so far as that, but the condition is a grave one, and is worthy of every attention and effort towards its cure. I shall not trouble you with an exhaustive dissertation on all the conditions producing aural discharges, but would merely mention some, and discuss at greater length a few of the more common and serious of them.

1. *External Ear.*—Discharges of varying character may be the result of injury from violence or from tampering with the ear, foreign bodies, diving, water in the ear, irritating applications, eczema, herpes, furuncule, otomycosis, and so on.

The most distressing of the number given is furuncule. It is practically a pimple, or boil, like any other pimple, but the discomfort it occasions is aggravated by its position. It is caused by infection of a hair follicle by a coccus, usually the staphylococcus. The surface may have been abraded through tinkering with the ear, or may have become infected in the course of a suppurating otitis media. A lowered state of vitality is, of course, a contributing factor, as well as unhygienic surroundings. The outer cartilaginous part of the canal is the common seat of the trouble, owing to the greater number of follicles present, and its greater liability to injury.

The earliest symptoms are heat and itching, soon followed by acute pain in the ear, which is aggravated by yawning or eating, or by

Digitized by Google

pressure on the tragus. When the furuncule is in the anterior wall of the meatus, the glands in front may be swollen, and a furuncule in the posterior wall may be mistaken for a mastoiditis. The canal is swollen and narrowed, and usually no view of the tympanic membrane can be obtained. If an incision has not been made, rupture will probably take place about the fourth day, or earlier, and at the end of about another week most of the trouble will be gone. Recurrence is frequent, owing to the extension of infection to other follicles. The condition may be confounded with otitis media, parotid, or mastoid abscess.

Treatment.—If seen early, thorough cleaning of the ear with peroxide solution, followed by the instillation of 10 per cent. carbolic acid in glycerine, may suffice to arrest the condition; but one does not usually see the case till pain and swelling are considerable. Then I consider prompt incision, under gas, the most surgical and humane procedure. This may be followed by irrigation and gauze packing. I have found bougies of carbolic acid with other volatile antiseptics, in a basis of gelatine and glycerine, a most useful form of treatment both before and after rupture. They dissolve slowly and keep the surface of the canal bathed in an antiseptic medium. They also reduce swelling. I think incision should be made early, not only to relieve pain but to prevent the formation of a necrotic core which may be difficult of removal. When the incision has healed I use a thin, dilute ointment of nitrate of mercury in liquid vaseline, which appears to prevent recurrence. A useful method is to keep the canal dry with insufflations of aristol and boracic acid. Internally calcium sulphide pills are recommended. I am in the habit of prescribing yeast, with, I believe, good effect. General tonics and change of air are indicated during convalescence.

Coming to the middle ear, I would ask you to consider purulent otitis media, acute and chronic.

To complete the picture it is necessary for us to consider, first of all, simple otitis media, which, untreated, frequently becomes perforative. There are several avenues of infection of the middle ear: the Eustachian tube, as in eruptive fevers, the circulation as in syphilis, the external canal as in injuries, and rarely the internal canal in cerebral abscess. Acute inflammation of the middle ear is the result of infection with a specific organism plus an irritation or lowered vitality of the mucous membrane, as in catching cold, sore throat, measles, scarlet fever, enteric, pneumonia, influenza, etc. The mucous membrane becomes swollen and reddened, then infiltrated with serum and leucocytes, there may be infiltration of the layers of the drum head, and the accumulation of secretion in the cavity of the middle ear. There may be destruction of the epithelium lining the cavity, leading to adhesive processes as the inflammation clears up.

The earlier symptoms are fulness and throbbing, and rapidly severe pulsating paroxysmal pains in the ear and head and teeth. The pain is always worst at night, and may give periods of rest toward morning. There is more or less rise of temperature, and, in children, drowsiness, delirium, or convulsions. Children usually incline the head to the affected side, and are constantly putting the hand to the ear.

On inspection the membrane will be seen to be more or less injected and bulging. In more severe cases it looks like a cherry at the end of the canal. The handle of the malleus is usually obliterated, though the short process may be made out as a yellow point. The membrane may be covered in patches by exfoliated epithelium or by blebs, or it may bulge in circumscribed areas.

In the early stages deafness may be slight, but rapidly becomes greater, whilst bony conduction may be normal or only slightly diminished. This is due to a coincident hyperæmia or effusion into the labyrinth.

In mild cases, after a few days the pain and disturbance gradually subside, the mucous membrane goes back to normal, hearing is restored with the help of inflation, and little damage is done. Should the epithelial layer have been damaged, adhesions may take place between the membrane and promontory or ankylosis of the ossicles may result, with a certain amount of impairment of hearing. In severe cases, perforation of the membrane takes place with rapidity proportionate to the severity, and then we have to deal with an otitis media perforativa or suppurativa.

The nature of the discharge varies with the origin of the infection. In influenza, for instance, the discharge is usually sanguineous, and perforation rapid. Treatment before perforation is imminent. If there are no

Digitized by Google

violent symptoms, an endeavour should be made to abate the disease without perforation of the membrane. The patient should be put to bed and any accompanying disease treated. He should be given a smart aperient, and phenazone or phenacetin administered for the relief of pain. Opiates may be required to procure sleep. Any throat trouble should receive appropriate treatment, and gargles employed. I am in the habit of using a cleansing alkaline lotion to be sniffed up the nose in every case; syringing the nose should be avoided. Leeches may be applied in front of the tragus, and instillations into the ear every three hours of a solution of carbolic acid in glycerine should be used. The carbolic is antiseptic and anæsthetic, whilst the glycerine is hygroscopic and abstracts moisture through the drum head. Hot poultices should be avoided, as they tend to promote perforation. Warm laudanum or poppy-head foments or compresses may be employed. They are sedative, and tend to equalise the circulation. In the less severe cases, gentle attempts may be made to open the Eustachian tube by Politzer's method. This gives drainage. But this method seems to be generally condemned in severe cases. It is just possible that infective material may be carried into the mastoid antrum, and a weakened membrane may be ruptured. Should these measures fail, punctures of the membrane under cocain anæsthesia is indicated. A 10 to 20 per cent. solution may be left in the canal for 10 to 15 minutes. Even then puncture is not always painless. The ear should now be irrigated with an antiseptic solution, lysol boracic or peroxide. The contents of the middle ear may be aspirated with Siegle's speculum or Delstanche's instrument, or expelled by Politzer's method. The canal is now carefully dried with cotton tampons, and packed with iodoform gauze or boracic acid powder insufflated, and the ear plugged with cotton wool or a small ear dressing applied. Daily dressing and inflation should be employed until the discharge ceases. It is important not to let the incision close until the discharge has practically disappeared. Inflation should be continued twice or thrice a week for a month to restore the hearing and prevent adhesions. Water must be kept out of the ear, and great care must be exercised in bathing. It is astonishing to me how many cases come under my care who ascribe their ear troubles to diving and sea bathing.

Perforative otitis media is practically the sequel of the last condition, but may be caused by injury through the external canal in addition. The mucous membrane may be intensely swollen, burying the ossicles, the M.T. is infiltrated with pus, and at one point there is a perforation. This is most frequent in the antero-inferior quadrant.

On inspection, the canal will be found filled with pus or muco-pus, and on washing out it may be impossible to see the opening, but on carefully mopping the membrane dry, a drop of pus may be seen exuding and pulsating at one point. According to Politzer, pulsation may be seen before perforation.

After clearing out the middle ear with the Politzer bag or Siegle's speculum as before, a warm ear bath of hydrogen peroxide should be used, and carbolic and glycerine instilled, or boracic powder insufflated, and a dressing applied. Perforation should always be anticipated by puncture where possible, and a free incision in the postero-inferior quadrant is the safest and easiest, and usually gives free drainage. Unfortunately, many cases are not seen until perforation has taken place, with the result that healing is more tedious and scarring of the M.T. more extensive. Where the perforation is too small for efficient drainage, it should be enlarged, Where the discharge is profuse, the patient should be instructed to change the dressing whenever it becomes wet, so as to avoid as much as possible outside infection. Should the discharge not tend to disappear, spirit may be instilled or various astringent and antiseptic solutions employed. I find protargol most useful. It may be necessary to wash the ear out through the catheter. The general health should be attended to, and any existing disease of the nose or throat attended to.

Results.—The ear generally clears up in a few weeks, but the condition may become chronic, or mastoiditis, thrombosis or cerebral abscess result. Various adhesions or ankylosis take place in the ear. Inflation must be practised for some weeks after healing, at lengthening intervals.

Chronic otitis media is the result of an acute attack which has been neglected or has resisted treatment. Frequently after the subsidence of pain and excessive discharge in an acute attack, the patient neglects further treatment, and it is only on catching cold, with a recrudescence of

Digitized by Google

symptoms, that he comes for consultation. It is only a running ear; why trouble about it? It can readily be understood that in such cases any condition from a simple perforation with slight discharge up to complete destruction of the M.T. and ossicles, with polypi or cholesteatoma, may be found. There may be one or more perforations, or only a small rim of membrane may be left. Sometimes the lower half of the membrane may be gone and a kidney-shaped opening is seen with the handle of the malleus projecting into the middle of it. Whatever the condition found, chronic middle ear suppuration is always a thing to get rid of as quickly as possible.

The symptoms may be few. A certain impairment of hearing is likely varying with the drainage. When the plate of the stapes is ankylosed to the margin of the oval window, or the round window is covered with cicatricial tissue, the hearing will be very poor. In cases of polypi or cholesteatoma the same will hold.

Treatment.—It is important that a cessation of discharge should be brought about as soon as possible, and a vigorous campaign must be instituted. There are two methods usually adopted—the wet and the dry. The dry can be carried out by the surgeon only. It consists in careful cleansing of the canal and middle ear as far as possible with mounted probes and the application of drying powders, as aristol, europhen, or boracic acid. But few patients can spare the time or the money for regular treatment by the surgeon, and it is doubtful if it is any more efficient than the wet method. The ear is syringed with a solution of lysol, borax, or boracic acid, Politzered, and carefully wiped clear of pus with the mounted probe; then a warm ear bath of hydrogen peroxide solution is used. When effervescence has ceased—it may be necessary to repeat the bath—the canal is again dried and rectified spirit, 5 per cent. or more, is instilled and the ear plugged with wool. I think the spirit is the best application when there are granulations. I have used numerous antiseptics and astringents, as europhen, aristol, iodoform, boracic acid, resorcin, protargol, etc., but none seem to give better results than spirit. Five per cent. boracic acid may be dissolved in it with good effect. It has also the advantage that it reaches the corners better than powders. It stings at first, but tolerance is soon established.

Polypi must be removed by the snare or ring knife. I find horsehair in the snare both safe and efficient. Granulations are removed by the curette, or caustic, should they not yield to spirit. Chromic acid diluted I find useful. I use the fused bead for granulations and small polypi in the canal. When cholesteatoma is present, considerable difficulty may be experienced in removing it. I know nothing so trying as the attempt to remove cholesteatoma from the ear of a fractious child. I have found nothing to soften or shrink it. I have tried spirit, glycerine with alkali, liquid vaseline, liq. pancreaticus, etc., but have had little assistance from any. If the edge can be raised, it can sometimes be syringed out in the piece, especially if a fine tube can be insinuated alongside. Frequently it extends into the attic, or mastoid antrum, and it can be removed by operation only. In a recent case, a child of 11, the antrum was dilated to the size of a large hazel nut, and filled with a cheesy glistening mass. She made an excellent recovery after clearing out the mastoid.

Sometimes the suppuration is confined to the attic or Prussak's space. It is then necessary to wash out the cavity with a tympanic tube, as inflation does not reach the part because of adhesions. It may be necessary to scrape away granulations or decayed bone in the margin.

In many cases as the discharge diminishes the perforation gradually closes. The cicatrix looks like wrinkled parchment, and is frequently very thin, and may give way under vigorous inflation or when squeezing. The remains of the M.T. are thickened and opaque looking, and frequently show white calcareous patches. When the perforation is situated close to the margin of the M.T., the epithelium lining the external canal may extend into the middle ear, lining the cavity, and so bring about a cessation of the discharge. In such a case the perforation cannot close.

Equally important with local treatment is the treatment of the nose and postnasal space. Nasal obstruction should be corrected, postnasal adenoids should be removed, enlarged tonsils should be dealt with, and perfect freedom of the upper air passages obtained. Catarrhal conditions should be combated by appropriate treatment. Most uncomplicated cases of middle ear discharge in children will be cured by the removal of the adenoids. It is at times astonishing how

Digitized by Google

rapidly healing is obtained. Further, when nasal obstruction and adenoids are removed, the tendency to catch cold seems to be lost. When discharge has ceased, it is important to warn patients against the dangers of bathing, and of introducing salad oil and other substances into the ear. Where there is a dry perforation it takes little to light up old troubles, therefore a plug of wool should be worn. The regular use of the shower bath over the head should be avoided.

I should have liked to go into the conditions found in the ear in syphilis, tubercle, typhoid, and diphtheria, but I fear I have already trespassed sufficiently on your patience. In conclusion I would only urge the vital importance of early diagnosis and treatment of otitis media, so that aural discharges, especially chronic middle ear discharges, with their accompanying dangers, may be reduced to a minimum. In no branch of surgery or therapeutics do we hear more often the miserable "too late" than in the work of the aurist.

FATAL ICTERUS NEONATORUM.

By A. A. Lendon, M.D. (Lond.), Lecturer on Obstetrics and Diseases of Infancy, University of Adelaide.

I AM desirous of eliciting from the members of this Branch an expression of opinion with respect to this symptom. We all know how common a mild degree of jaundice is soon after birth, but what I should like to ascertain is (1) the experience of those present as to how often infants die after it, and (2) their views as to the cause of death; whether it be directly due to the jaundice or to some general toxæmia, of which the jaundice is merely an indication. The subject has been forcibly brought home to me owing to my having had recently a fatal case; in addition, I can recall two instances that have occurred in my practice.

Case I. Jaundice followed by Acute Anæmia.—Mrs. X., *æt.* 34, was delivered at full time of her second child on September 2nd, 1903. The lie was cephalic, and the position left occipito-anterior. As the head failed to engage in the pelvic brim after ten hours' labour, although the pains were frequent and strong, the forceps were used, under chloroform, to bring it down to the perineum, and then the labour terminated naturally. Considerable force was required, the difficulty being apparently due to the size of the baby's head rather than to any pelvic narrowing. The infant, a male, weighed 8½ lb. The left parietal bone afterwards showed a dint from the forceps, which persisted.

The child took the breast well, and seemed satisfied, but he was always a sick baby, and this was attributed to his ravenous mode of sucking; the vomit consisted merely of curdled milk. A day or two after birth he was noticed to be slightly jaundiced, but the motions were never destitute of bile; indeed, those that I saw were brown rather than of the usual colour seen in children. The jaundice increased in intensity somewhat, although the tint was never much deeper than that of a lemon, and it proved more persistent than usual. Still, neither the intensity nor the duration of the jaundice suggested that there was any need for anxiety, and on the ninth day the icterus appeared to be diminishing, but at the same time the baby was noticed to be very pale, and I began to be uneasy at his not improving. Although the infant's cry was quite strong, the nurse herself thought that he was never quite a robust baby. On the thirteenth day after birth he took the breast well at 2 p.m., was not sick afterwards, but when seen at 5 p.m. he was found to be very ill indeed; he had refused the breast entirely, nor would he be fed with a spoon; his breathing was rapid, shallow, and catchy; the skin and visible mucous membranes were astonishingly exsanguine. There was no fever, and it was difficult to keep him warm; nothing could be made out to be wrong with the heart or lungs; the motions were natural; there were no hæmorrhages and no enlarged glands. I asked Dr. Reissmann to see the infant with me, and he failed to discover any cause for the anæmia and the collapse, which by 8 p.m. threatened a speedy termination to the child's life. Normal saline fluid was injected into the rectum, and milk and water into the stomach through a rubber catheter, whilst strychnine was administered hypodermically, but the baby died at 3 p.m. on the fourteenth day. There were no convulsions.

I gave in my certificate as the cause of death, icterus neonatorum and acute anæmia. That the latter was the mode of death was the only certainty, for it must be considered not proven that it was in any way primarily due to the jaundice. The jaundice was obviously not obstructive in its origin, and therefore must be considered to be hæmatogenous, and presumably due to the

Digitized by Google

circulation of pigment, the result of excessive destruction of red corpuscles, such as obtains in various conditions, as, for instance, in chloroform poisoning or plumbism, or other toxæmic states. The acute anæmia I also considered to be hæmolytic, as there was no evidence of any gross hæmorrhage. Thus both the icterus and the anæmia may, I think, be fairly attributed to some hæmolytic agency, and presumably a toxin, but of what nature such a toxin might be I cannot hazard any suggestion. The child's mother had been treated for anæmia before she became pregnant, and whilst carrying the child; she has been under similar treatment since. Her first child has always been healthy, nor do I consider that she herself has deteriorated in her general health since its birth. There is no suggestion of any constitutional or specific disease in either parent. The infant had no umbilical inflammation or hæmorrhage, and the cord came away on the .....th day; there was no sign of cyanosis or of hæmoglobinuria, such as is characteristic of Winckel's disease. A post-mortem examination could not be obtained.

Case II. Jaundice and Congenital Syphilis.—Another case that I recollect occurred some 16 years ago. The child was born somewhat prematurely; the mother had contracted syphilis from her husband some years before, and both elder and younger brothers of the infant under discussion have furnished examples of congenital syphilis for demonstration at the Children's Hospital from time to time. Whether this particular infant showed any signs of the disease at birth I cannot remember, but it had a virulent form of ophthalmia neonatorum, and lost both eyes whilst at the same time jaundice set in, and became of considerable intensity, the infant dying on the tenth day.

In this instance we have two factors upon which stress is usually laid, namely, prematurity and syphilis, both of which can be excluded from the causation in case I.

Case III. Jaundice in Two Children Consecutively.—Mrs. A., aged 31 years, has been married seven years, during which time she had been pregnant on six occasions. The eldest child died of convulsions at 18 months of age; the next died jaundiced on the second day of life; subsequently two miscarriages occurred. My first acquaintance with the patient was when attending her at the birth of her third child; she had been very depressed about it, and feared that it might have jaundice also. Of course I assured her that this would not be the case; the baby, however, died on the second day and jaundiced. A careful post-mortem examination was made, but no obstruction was found. In 1901 her fourth child was born dead, and macerated at the seventh month; the mother had dropsy and albuminuria at the time, both symptoms rapidly subsiding immediately after the birth. No history of syphilis could be extracted from the husband.

In connection with this subject I may refer to a paper which many of you will remember being read by Dr. W. A. Verco, and which was published in the *Australasian Medical Gazette*, January, 1899. It was entitled "Umbilical Hæmorrhage," and illustrated the connection between icterus neonatorum and hæmorrhage from the umbilicus after separation of the cord, which is frequently fatal. Of this, however, I have had no personal experience.

(Read before the South Australian Branch of the British Medical Association.)

SOME COMMON CAUSES OF BACKACHE.

By Geo. Cuscaden, L.R.C.P., L.R.C.S., Hon. Surgeon (Outpatients) Women's Hospital, Melbourne.

THERE is no more frequent complaint made to the general practitioner by his female patients than backache, and in looking over my notes I can furnish a list of some of the commonest causes of this most distressing symptom.

The sacro-iliac synchondrosis, although in its normal condition a very fixed and rigid joint, may be the seat of a sprain from any sudden violence, for instance, attempting to sit down upon a chair lower than expected. In this injury the pain is referred to the sacral region and in the buttocks, the joint being supplied by the superior gluteal, the lumbo sacral and the first sacral nerve, and by the first and second posterior sacral nerves. This is often a very tedious condition to treat, and necessitates absolute rest, the local application of blisters, the Tallerman hot air pelvic box, and, at a later stage, massage.

A very painful and common form of backache is coccygodynia, as a result of dislocation or disease of the sacro-coccygeal articulation. It is a most difficult—in fact, impossible—matter to keep the muscles attached to the coccyx at rest, particularly the levator ani and sphincter ani; and the only treatment that seems to offer any hope of relief is complete

Digitized by Google

lying over the joint has been recommended, but the results do not seem so satisfactory as excision.

In every case of backache I make it a rule to examine the anus and rectum before proceeding to examine the uterus and appendages. It is surprising the amount of discomfort and pain that is produced by a fissure of the anus. The posterior wall is the usual seat, and the nerve supply from the sacral and hæmorrhoidal nerves being so abundant accounts for the intense backache. The treatment in these cases is to dilate the sphincter ani and divide the base of the ulcer. Hæmorrhoids when inflamed are a constant source of backache, and it is a very rare thing to find a child-bearing woman in this relaxing climate who is not subject to them. After trying all the recognised treatments, I have come to the conclusion that excision of the piles is the safest and most satisfactory operation.

It is surprising the number of women who suffer from some mobility of the kidney. The right kidney in a very great majority of cases is the one that leaves its peri-renal attachments, and, when the mobility is very pronounced, backache is a prominent symptom. Belts and abdominal pads do not, to my mind, improve the condition, and I always advise the fixation of the kidney by nephroraphy.

Pain in the back is a constant symptom in chronic metritis, endometritis, or even cancer of the uterus. Of course, there are other symptoms coupled with this from which we can make a diagnosis, such as hæmorrhage, gonorrheal discharges, purulent and non-purulent. From the nerve supply to the uterus and its appendages it is easy to understand why pain may be referred to any part of the pelvis, to the rectum or bladder, and frequently also to the region of the left ovary (this latter symptom is probably the result of salpingitis, being an extension upwards from the endometrium), but the pain in the lumbar region is never absent. Exercise, jolting, straining at stool, are some of the exciting causes; long railway journeys increase the discomfort. Retro deviations in the early stages, when the uteral attachments are being stretched, give rise to backache, but the parts will sometimes adapt themselves to the abnormal position, and at times, in chronic cases, give little or no trouble. I have discovered the most inveterate cases of retro deviation when the patient was quite unconscious of anything being wrong.

I think we can safely say that the days of the pessary, like the hernial truss, are numbered, for, with ordinary skill and strict asepsis, the uterus can be as safely fixed in its normal axis as a hernial sac can be removed.

should such treatment as rest, depletion by scarification of cervix, and douching, and ichthyol glycerine plugs fail to relieve, amputation of the infra-vaginal cervix has been recommended.

(Read before the Victorian Branch of the British Medical Association.)

CASE OF CÆSAREAN SECTION.

By Joseph L. Beeston, L.R.C.S.I., L.K.Q.C.P.I., Newcastle.

CASES requiring Cæsarean section are not of frequent occurrence in this country. I think this worth recording. It is the only one I have met with in a practice extending over 20 years, and, as far as I can ascertain, is the only one in this district. This is naturally accounted for by the almost total absence of those rachitic deformities so frequently met with in the United Kingdom.

Mrs. M., *æt.* about 27, is a dwarf under 4 ft., with a flattened and contracted pelvis. She has been pregnant three times. Twice craniotomy has been performed, and turning once, the child being dead. She is extremely anxious to have a living child, and with the object of endeavouring to gratify her desire, Dr. Begg, of Dudley, sent her to me. She was admitted into the Newcastle Hospital last month.

In determining the time of operation I followed the advice of Howard Kelly, who advocates trying to fix the time as near that of the termination of pregnancy as possible; then to prepare for it as in the ordinary operation. This plan certainly has many advantages—one can perform it in daylight, and without the hurry and bustle which would necessarily occur if labour were waited for.

Menstruation ceased, she told me, at the end of July the year previous, but she says she has always been "before her time." As near as I could judge, by palpation and auscultation, the time would be up on the 13th May, and this was the day I fixed upon to operate. As a matter of fact, labour had already started just before the operation, as I could get three fingers through the os from above after opening the uterus. I was assisted by Dr. Nickson, Dr. Dunlop being in readiness to receive and look after the child. The anæsthetic was administered by Dr. Clarke. The incision was made in the median line, from about two inches above the umbilicus to the pelvis. The abdominal walls were

Digitized by Google

thin, and after a couple of cuts the uterus was exposed. The abdominal walls were kept pressed against the uterus during the remainder of the operation. The incision in the uterus was made from the fundus to the utero-vesical fold. The placenta could be seen attached to the right side of the uterus. The incision was carried down until the membranes presented in its whole length. These were then ruptured by pushing the hand through them. I first grasped a hand, but quickly changed this for a foot. The child was delivered without any difficulty. The cord was clamped with a couple of pressure forceps, and severed, the child crying lustily from the time it was extricated from the uterus. The placenta was now peeled off without any trouble, and the os examined for drainage. It was then that I found labour had started. The uterus was thoroughly douched with hot boracic acid, and by this time uterine contraction was complete. Four deep sutures were placed through the muscular coats of the uterus, and intervening sutures through the peritoneal surface. There was no necessity to wash out the abdominal cavity. The abdominal wound was closed in the usual way. The operation from start to finish occupied 23 minutes, and, to anyone accustomed to abdominal surgery, is very easy of performance.

The child weighed 4¾ pounds. The after treatment was uneventful. The child took the breast on the second day, and mother and child left the institution on the twenty-first day after the operation.

CLINICAL AND PATHOLOGICAL NOTES.

CONGENITAL GENU RECURVATUM.

THE child was born on the afternoon of November 16th, before my arrival, presentation being both feet. It is from four to eight weeks premature, the exact date being doubtful, owing to the mother menstruating regularly during the first half of pregnancy, and not being sure when she quickened. Shortly after the birth, the hyper-extension of the knees, the typical sign in this condition, was well marked. Apparently no patellæ are present, and there is shortening of the quadriceps extensor, with weakening of the posterior ligament of the joint. Attempts to straighten the limb at first caused considerable spasm of the extensor muscles, but this has gradually been overcome by the continued use of internal and external splints of cardboard. Associated with this condition of recurvatum are often other deformities, but none are present in this case. The deformity is usually congenital; it sometimes occurs in connection with congenital dislocations of the knee and of the hip. Sometimes it is the result of infantile paralysis, and occasionally occurs in old-standing tubercular disease of the hip, as the result of stretching of the posterior ligament of the knee during extension. It is not uncommon for the patella to be absent, and, if present, it is usually small. Out of 78 cases collected by Potel, 37 were unilateral, the remainder bilateral. In 26 out of 50 cases the patella was rudimentary or absent, and 20 cases also had talipes. The cause of the deformity is an abnormal position in utero; and Whitman says it is not infrequently accompanied by varus or valgus deformity at the knee and by laxity of the ligaments.

As regards treatment, which is necessarily a prolonged one, Whitman recommends massage of the affected muscles (in this case the quadriceps extensor) combined with more or less forcible manipulation in the direction of flexion; and where, as is often the case, the limb seems drawn forward by spasmodic muscular action, massage combined with the use of a posterior splint. Keetley recommends "supra condyloid division of the femur, followed by adjustment of the lower extremity of the femur more or less at a right angle to the shaft," but he does not say at what age he would do it. I hardly think such treatment suitable to this case unless preceded by the operation of Cheyne and Burghardt o lengthen the quadriceps extensor. When the child begins to walk a mechanical contrivance will be necessary with a stop at the knee to prevent over extension.

A skiagram was difficult to obtain. Dr. Sandes has taken one in which the shaft of the long bones appear, but there is as yet no centre of ossification of the lower end of the femur or the upper end of the tibia, and, of course, no evidence of any patella.

I feel inclined for some months at least to be content with massage of the quadriceps and the use of splints to keep the limbs straight, and occasional manipulations into the line of flexion. As regards apparently absent patellæ, Whitman states that a minute one often appears in the early months of infancy and it gradually increases towards full size.

T. W. LIPSCOMB,
M.B., Ch.M. (Syd.).

Leichhardt.

Digitized by Google

OPERATION—RECOVERY.

In this case of recovery from abscess of the temporo-sphenoidal lobe there were no localising signs present, except acute pain in and around the ear. The patient had been ill for a week when I saw him, at the request of Dr. Walker Smith. The symptoms pointing to involvement of the brain were three slightly slow cerebration, pain and slight photophobia with a normal temperature. He was removed to the Sydney Hospital, and I operated three hours after first seeing him. The usual incision for the radical mastoid operation was made, and the skull entered immediately over the tegmen tympani. The mastoid antrum and middle ear contained pus of an offensive nature. There was no pulsation visible when the dura was exposed, and so an incision was made directly into the brain, which was fortunate in striking the pus a short distance from the surface. The pus was foul, as it usually is in these cases, and about 2 oz. in quantity. The cavity was lightly curetted, and some loose brain tissue removed, after which it was syringed with normal saline fluid, and packed lightly with gauze. His progress was thereafter quite uneventful. Some three weeks later I closed the wound, and now you see the result, which is a complete cure of the middle ear lesion as well as the brain abscess.

One feature I wish to dwell upon, and that is, the pulse. The pressure theory of the pulse slowing is supported by a good many reasons,—first, that it seems to bear a constant relationship to the increase of pressure, *i.e.*, inversely. The greater the pressure the slower the pulse. It occurs in other lesions of the brain, viz., cerebral hæmorrhage and effusion in which the pressure has taken place suddenly. In cases where the brain has time to adapt itself to the pressure, this is less noticeable. In this case, and in a case lately shown by Dr. Brady, the pulse remained slow after evacuation of the abscess, and the pulse did not regain its normal frequency for some time after. This would tend to show, although not definitely prove, that this development of some chemical product had an influence in the submission of the pulse. In the same way the thermo-genetic centre may be influenced by the toxines developed in the abscess. In drawing attention to abscess of the brain one cannot help thinking there are undiagnosed. The late Dr. Murchison stated in the Pathological Transaction in 1885 that many cases of cerebral abscess were admitted and sent to the fever hospital with symptoms of continued fever.

T. S. Kirkland, M.D., F.R.C.S. (Edin.),
Surgeon Ear and Throat Dept., Sydney Hospital.
Sydney.

AN UNUSUAL CASE OF TUBERCULAR PERITONITIS.

A girl, *æt.* 13½, was brought to me by her mother complaining of suppressed menstruation and sudden enlargement of the abdomen, while the patient had rapidly lost flesh. She had always been healthy, bright and active, and had lived some little time at Mungindi. There was no history of tubercle in the family, and whatever milk the girl consumed had been previously boiled. On examination she appeared to be a well-developed child, but had apparently lost some condition. She was short of breath on exertion, and very easily exhausted. The tongue was red and irritable, there was some pain after taking food, and occasionally vomiting. The bowels were regular. The lungs were normal. Pulse 135; heart normal. Liver dulness extended up above the nipple on the right side, and inferiorly there was a diffuse swelling merging into the generally swollen abdomen. The abdomen was everywhere tensely distended and almost uniformly dull on percussion, giving the characteristic sensation of fluid on palpation. The urine contained no albumin. Her temperature was 104, and remained at that for three days. Dr. Scot Skirving saw her with me Her temperature was then 103·5°. She had no pain, and her abdominal distension had slightly subsided. It was decided to put her on iodide, and apply oleate of mercury inunctions to the abdomen for a week, when, if the symptoms did not subside, laparotomy should be performed. Very little temporary improvement resulted, and she was admitted to the Marrickville Cottage Hospital. Laparotomy was performed, and the whole of the peritoneum found covered with tubercle. The transverse colon was found firmly attached to the anterior abdominal wall below the umbilicus at the usual spot for paracentesis. Three parts of an ordinary bucket of green clear fluid was obtained, and the abdomen washed out with hot solution of boric acid and closed. She was put on syr. ferri iod. with creosote and codliver oil, and made a rapid recovery, being discharged well a month later. Holt mentions this class of case under the heading of miliary tuberculosis, and Osler draws attention to such cases, "in which the

Digitized by Google

onset is so sudden and violent that the diagnosis of enteritis or hernia is made." The adhesion of bowel to anterior abdominal wall emphasises the admonition of Holt that "tapping should not be performed on such cases except for diagnostic purposes." Since her discharge she has rapidly increased in weight and condition. This case does not bear out the statement of König, that high temperature is a bar to operation; but I should not have performed laparotomy under that condition but that the patient was in great distress.

A. E. Perkins, M.B., Ch.M., D.S.O., Sydney.

REVIEWS AND NOTICES OF BOOKS.

Tuberculosis: Recast from lectures delivered at Rush Medical College, in affiliation with the University of Chicago, by Norman Bridge, A.M., M.D., Emeritus Professor of Medicine in Rush Medical College, etc., etc Philadelphia, New York and London: W. B. Saunders & Co. 1903. Price, 7s 6d.

This work deals with medical tuberculosis only, and the bulk of it with tuberculosis as affecting the lungs. Chapter I is devoted to a description of the bacillus tuberculosis and the mode of detecting it; chapter II to the tuberculous processes; chapter III to the forms of tuberculosis, and here we have a description of eight forms of the disease as it affects the lungs. This will be one of the most valuable parts of the book to the young practitioner, as, if borne in mind, it will help him much in making a correct prognosis. Succeeding chapters treat of the pathology, etiology, symptoms, physical signs, diagnosis, prognosis, prophylaxis, and treatment, and the final chapter is devoted to sanatoria for tuberculosis.

Whilst the views expressed in this work are for the most part those commonly accepted, there are some which are novel, not to say startling. Thus we are told that "muscular vigour is no refuge against tuberculosis"; that "over-development of fat or muscle is usually followed by a relapse of the tuberculosis, with reduced prospects of ultimate recovery"; that "it is not proven that a night sweat is not a conservative process, to be encouraged rather than otherwise." In the treating of prophylaxis the author says that "ordinances against spitting on sidewalks are not so useful as has been supposed. If women would always wear short dresses, never gowns that sweep the ground, and if we could avoid treading upon the sputum, I am sure that, aside from æsthetic reasons, it would be better to allow spitting on the sidewalks rather than in the streets, for on the sidewalks the sputum receives more direct sunshine, which may destroy the bacilli, while in the streets it gets rolled in dust that impedes the sun's rays, and so the bacilli persist longer, and become more rapidly diffused through the air." If this be true, we shall have to alter some of our sanitary by-laws.

Dr Bridge has not much faith in compulsory notification. He thinks that prevention of the spread of the disease must mainly be secured "through the efforts of physicians and the enlightened sense of the general public, rather than by attempted official regulation." He is opposed to the destruction of tuberculous cattle, unless they are manifestly sick; those that are healthy looking, even "if they do react slightly to tuberculin, he thinks may be kept if people will house and care for them." The latter part of this statement strikes us as remarkable in the light of the fact that stall-fed cattle are more liable to tuberculosis than those that run wild. Although agreeing with Koch that primary tuberculosis of the intestine in children is very rare, still he would make the sale of tuberculous milk a crime by law. The prophylactic value of sanatoria is insisted upon. Our author affirms that the only way to prevent consumptives from daily spreading the contagion is "to segregate them from the rest of the community in sanatoria at public expense." He says that this will some time be done to a very large extent, he has no doubt whatever. "Several States are already moving in this direction, and others will follow. Nor will it in the end be any special burden to the State, for this precautionary step, by lessening the diseases in the community, is sure to prevent other losses that are vastly greater in a pecuniary way than the cost of the sanatoria." Coming to treatment, the author insists that the chief factor is an increase of the resisting power of the body. He has no faith in specific drugs; only those which are really foods are of value. With these views we are in entire accord. Dr. Bridge has a chapter on "The management of the diseased lung." He clearly belongs to the school which insists upon the importance of rest to the diseased organ, which he secures by strapping the affected side or applying a jacket of his own invention, and which is figured in the work. He says, very pertinently, that in tuberculosis affecting all other organs of the body we put the part at rest as far as possible. Why should we not adopt the same principle in tuberculous disease of the lung. The usual practice has been to do the very opposite—to urge the patient to take repeated deep breaths and "expand the lungs." He believes that this leads to a hyper-development of fibrotic tissue, the subsequent "contraction of which cripples the lung, and may itself destroy life." He likens this to the large amount of new connective tissue which is produced when a sore is frequently disturbed and slow in healing. He describes Murphy's method of preventing all motion of the affected lung by inflating the pleural cavity with sterile air or nitrogen gas, a practice which he admits most patients shrink from. We should think so, and we trust that no British surgeon would resort to so heroic a method of treatment. Referring to climate, Dr. Bridge says that one of the best of all treatments for pulmonary tuberculosis is a new climate, and that the quality which is of chief value after purity is mildness, so that the patient "is by the very weather invited to spend much of his time out of doors. Outdoor life is the most valuable treatment of tuberculosis extant; hence, any place where the weather makes it easy for the patient to have with comfort this surpassing remedy all the time is salutary for this disease." He affirms also, as we have repeatedly done, that the low barometric pressure of altitude and dryness of the air are also of much value. The use of ergot in hæmoptysis he considers "most reprehensible, for it increases the blood-pressure and so makes it more likely that a vessel wall, made fragile by the tuberculous deposit, will rupture." He says of adrenalin that from current reports some promise of relief to hæmorrhage seems to be offered, "but," he adds, "if the purpose sought is to contract all the blood vessels, then we shall probably be disappointed, for this is what ergot does—to the increase not the decrease of hæmorrhage."

In the chapter on special treatments, horse serum and tuberculin are referred to. Of the former he says, "the good results reported have, in every instance, been based on the observation of a few patients, without controls for comparison, and therefore, with no means

Digitized by Google

as well without the serum." And of tuberculin, that "by the majority of practitioners it has been condemned as not only useless but harmful." As will be gathered from what has been already written, Dr. Bridge is a strong advocate for sanatorium treatment, and in a final chapter he insists that all consumptive patients, whether rich or poor, for their own sakes and for the safety of others, are more advantageously treated in a sanatorium than in their own homes, the exceptions to the contrary being very few indeed. The book is provided with a useful index. As a whole it is a most readable, up-to-date work, and is full of valuable practical suggestions, both as to prophylaxis and treatment.

P.S.J.

PROTOZOA AND DISEASE. By J. Jackson Clarke, M.B. (Lond.), author of "Surgical Pathology and Principles." London: Baillière, Tindall & Cox. Sydney: L. Brnck. 1903.

This volume is the first part of a work on protozoa and disease, and covers the same ground as was covered by three papers published by the author in the *Medical Press and Circular*, in August, 1893. In the present work the author has fully availed himself of the large amount of work done in this region of medicine in different parts of the world.

In recent years we have come to know that the protozoa exert an important part in the pathology of some forms of disease, and hence a work which gives us in a concise and readable form the latest information on the life history of those forms of protozoa which have been definitely associated with definite diseases is a most timely and valuable one. The exact relation of these lower forms of animal life to the diseases is not discussed in this volume, so that we have only a bare mention of the relation, *e.g.*, of the amœba to amœbic dysentery, the plasmodium to malaria, etc. The descriptions are morphological and biological, rather than pathological, but none the less important in view of work which has yet to be accomplished in this field of medicine. The work is well printed in clear type, and the illustrations numerous and clear. Altogether the work is a valuable one to those interested in the question of the etiology and pathology of various forms of infectious disease.

G.E.R.

ATLAS AND EPITOME OF HUMAN HISTOLOGY AND MICROSCOPIC ANATOMY. By Privat-docent Dr. J. Sabotta, of Wurzburg. Edited by Carl Thaber, M.D. London and Philadelphia: W. B. Saunders & Co. Melbourne: Jas. Little, Bourke-street. Price, 22s 6d.

This book consists of an extremely well illustrated and concisely written account of the normal histology of the tissues and organs of the human body. The descriptive part of this book, though short, is in reality all that is needed for the uses of the student and the busy practitioner. The illustrations are very beautiful, and are from an artistic point of view as nearly perfect as it is possible to make them; they are, it is true, somewhat diagrammatic, but that, in our opinion, is rather a good fault in a work of this nature.

The whole arrangement of the book is excellent, and reflects the greatest credit upon author and publisher alike.

S.J.

THE CARE OF THE SKIN AND HAIR. By James Startin, M.R.C.S. Bristol: John Wright & Co. 1902. Price, 2s 6d net.

This little book is not of much interest to the medical profession. Its diction, style and tone evidently are professional mind. Hence we are not startled by such language and statement as the following:—

"Wrinkles, of all the *enemies* of a good appearance, are viewed with the greatest apprehension. *No time should be lost* in counteracting this *alarming* tendency by the application of certain astringent preparations, or by massage or rubbing the wrinkles and adjoining skin." . . .

"Freckles, though not so *injurious* to the complexion as wrinkles, are yet very *destructive* of a good appearance. They are, as we *mostly* know, caused by exposure to the sun and wind, and are not *constitutional or permanent when carefully treated*." . . .

"If there is one characteristic which distinguishes an English man or woman, it is the almost universal habit of cleanliness—*the love of the tub*."

The author does not soar through his subject, but condescends to matter of homely interest and everyday importance. He throws out a special caution against "red flannel" worn next the skin, "porridge" as a regular article of diet, and, above and beyond all, against "the abominable tight hat or chimney-pot, as it is called," being "the commonest cause of our young men losing their hair so prematurely." In his first and last caution he is probably right; from his middle, on personal observation, direct and indirect, we are inclined to disagree. Porridge, ever since the historic days of Jacob and Esau, seems to have exhibited great variability in value and appreciation amongst the nations; and, as Esau in his eccentric and unjustifiable deal over his birthright with his brother over-estimated it, so are we inclined to think that Mr. Startin underrates it, even when viewed in the light of a complexion diet.

The article "On Baths and Bathing" is a useful one. After enumerating the various kinds of baths, their physiological action and therapeutic use, the writer gives some excellent rules of guidance in connection with bathing generally. So, too, in the management of the hair he furnishes directions which will not fail to be appreciated by all who interest themselves in that important subject. Altogether, this book, although elementary in its nature, contains much information, historical, physiological and medical, which will be read with profit by all.

F.A.B.

We have received from Dr. J. W. Harbinson, of Brighton, Victoria, a small book of poems, most artistically set up, and dedicated to Lord Tennyson, K.C.M.G. There is a strong flavour of Ireland in many of the poems, which are characterised by the national instinct of a "fondness for Nature in her more smiling moods, and a love for fair women." Many of the poems are clothed in metaphor, not inaptly worded, and redolent of love. We wish Dr. Harbinson every success with his book, which is well worth perusing.

THE COMMONWEALTH DENTAL REVIEW, vol. I., No. 1.,

is a monthly magazine issued by dentists for dentists, and is edited by Mr. Charles Hall, of Blue-street, North Sydney. The number contains several articles of interest to dentists, and also matter on dental ethics. The issue, both in reading matter and in manner of and production, *i.e.*, cover, printing, and paper, is attractive. The editor, in stating the reasons for introducing the journal, pays due recognition to the publication that already exists in Australia representing the dental profession.

Digitized by Google

THE AUSTRALASIAN

MEDICAL GAZETTE.

SYDNEY, 21ST DECEMBER, 1903.

PRESERVATIVES IN FOOD.

THE Select Committee of the New South Wales Legislative Assembly appointed to investigate the question of the use of preservatives in food has presented to Parliament a progress report, dealing chiefly with the question of the use of boracic acid in foods. We print in another column the main points in this report, and the conclusions arrived at by the Committee after a consideration of the evidence adduced. These conclusions appear to us to be based upon an entire misapprehension of the true significance of the evidence given by the medical witnesses, owing to the inability of the lay mind to fully understand the special points of the question in dispute.

It is somewhat remarkable that great stress is laid by the Committee upon the divergence in the views expressed by the Board of Health officials and the City Health Officer, and those advocated by some medical men outside official circles; and it is stated that the former based their opinions entirely, or mainly, upon theory, while the latter spoke from their practical experience of the innocuousness of boracic acid. We all are ready to admit that an ounce of practical experience is worth tons of theory, but then the practical experience must be relevant to the question at issue; and we maintain, with all due respect to the sincerity of the opinions expressed by the medical men who gave evidence in favour of the use of this substance as a preservative, that the experience they quote is entirely insufficient and not to the point. No one for a moment will dispute the fact that boracic acid is a drug which can be given with distinct advantage in certain diseased conditions, in which the use of an internal antiseptic is indicated. But this is not the point. Can anyone say from practical experience that the ingestion of 10 or 20 grains of boracic acid in one article of diet per diem by healthy persons, whether infants or adults, for years, is perfectly innocuous? This is a question which can only be answered either way after years of careful observation of the effect produced by this drug on persons in ordinary health, not on patients suffering from disease. We know that small doses of arsenic can be given with the greatest benefit in certain diseased conditions, but no one will dare to say that the long-continued use of small doses of arsenic is perfectly harmless. The daily press has stated on several occasions that the evidence in favour of the use of boracic acid was overwhelmingly preponderant, but it ignores the exceedingly strong scientific evidence of the Board of Health officials, who have devoted a large amount of time and thought to this matter. So far from the question being definitely settled by this report, we think that the medical profession as a whole will be prepared to support the Board of Health in their endeavours to secure and maintain the purity of our food supply.

HOSPITAL MAINTENANCE.

THE maintenance of our large hospitals is becoming a matter of urgent importance, and the tendency is for these institutions to become more and more dependent upon Government assistance. The completion of the large new pavilions at the Royal Prince Alfred Hospital, which will mean an

Digitized by Google

dation, will severely tax the resources of the hospital for their maintenance. In fact, unless some method of increasing the present income is devised, the maintenance will inevitably fall to a large extent into the hands of the Government, which has already spent several thousands of pounds in the erection of the buildings. The Sydney Hospital for Sick Children has recently received a grant of £5000 from the Government to assist them in the purchase of six acres of land upon which to build a new hospital. This institution already needs about £7000 per annum for its support. A large part of the income of the Sydney Hospital is derived from the Government. Recently a meeting was held at the State Government House, under the presidency of Sir HARRY RAWSON, to devise means to enlarge the income of the Queen Victoria Homes for Consumptives. These institutions, upon which devolve practically the whole of the active modern treatment of this disease, require at least £4000 per annum to enable them to be maintained in their present state. At present only about £2000 is received from voluntary subscriptions, and there is urgent need for the extension of the existing accommodation, especially for female cases.

These are but a few illustrations from New South Wales of the pressing need of some method of increasing the income of these institutions. It must be admitted that the practice of depending upon the Government. so largely for aid to charitable institutions tends to some extent to curtail the contributions from the general public, and it is noteworthy in how few instances and to what a small extent are sums of money bequeathed to the endowment funds of the hospitals. It is true we are not a wealthy community; we have not the millionaires of America nor the large class of well-to-do people as in England; but surely there is enough wealth in the country to richly endow all our hospitals and render them almost, if not quite, independent of Government assistance.

A review of the subscription lists to our charitable institutions shows that practically the same people contribute to all, and a very large section of the community contribute almost nothing, unless it may be a copper or two on Hospital Saturday. The Hospital Saturday collections, both in Sydney and Melbourne, amounting only to £4000 or £5000, are, comparatively speaking, trifling amounts when the needs of the hospitals are so great, and it becomes a matter for consideration how to reach the pockets of those who contribute nothing at all.

Different schemes for raising funds may be suggested, but unless a contribution to the maintenance of the hospitals is made more or less compulsory, we fear that but little advance will be made on the present sources of revenue.

We would again urge upon the Government the advisability of considering some sort of hospital tax. As a community we are heavily taxed already, but in spite of this a very large amount of money is annually spent upon the various forms of amusements. A penny tax upon every ticket of admission to the theatres, concerts, race meetings, cricket matches, etc., would, we believe, amount to at least £100,000 per annum. An extra penny upon a ticket for pleasure would not be felt by anyone, and a large income would thus be secured which would to a great extent relieve the directors of hospitals of their present anxiety to find the funds necessary to keep these institutions open to the deserving sick poor.

WANTED, an Articulated Skeleton; must be in perfect order. Apply Dr. Stewart, Rockhampton, Queensland.

Digitized by Google

THE MONTH.

The Sydney City Coronership.

Mr. J. C. Woore, J.P., the Sydney City Coroner, has resigned his appointment after nearly 15 years' service. There can be no doubt that this step has been taken in consequence of the rather harsh treatment meted out to Mr. Woore by the Legislative Assembly, which, on the occasion of the consideration of the Estimates, reduced the salary of this office from £750 to £500. During his term of office his duties as coroner have brought him in contact with a very great number of the medical practitioners of Sydney and its suburbs. Among them he has many friends, and all who have been called upon by him to elucidate the medico-legal problems with which he has been confronted have recognised the extremely careful and conscientious manner in which it has been his wont to conduct the investigations and to perform the delicate and often difficult duties of his office. The position of City Coroner is no sinecure, involving as it does constant attention to duty, night and day, Sundays, week days, and holidays. Further, it is a position of the greatest importance and responsibility, and the powers conferred by law upon this officer are in many respects the same as those of a Supreme Court Judge. Under these circumstances it is absolutely necessary that a large salary should be paid, not less than £1000 per annum, to secure the services of a competent officer, who should be a medical man or a barrister, or both. In the present Deputy City Coroner, Dr. R. H. Todd, we have a member of the medical profession who for some years has been practising at the bar, and we sincerely hope that he may be appointed to the vacant office at a salary commensurate with the importance and responsibility of the position.

The Illness of the German Emperor.

The telegrams which have appeared in the daily press leave us in doubt as to the nature of the growth which was removed from the larynx of the German Emperor. One quoted from the *Weiner Allgemeine Med. Zeitung*, stating that "the operation had given rise to unexpected complications, which rarely follow the simple operation for so-called singer's polypus," must be a mistranslation of a coded message. There is no such disease of the larynx as "singer's polypus." Singer's nodes on the vocal cords is a well-known disease, due to overuse of the voice, particularly when false methods of voice production are used. They occur on the opposing margins of the cords, about the junction of their middle and anterior thirds. They are of the nature of a hyperplasia of the normal tissue elements, due to excessive friction, not of a neoplasm, as is a polypus. They are not in any sense dangerous to life, but they cause a huskiness and want of clearness of the voice. Another cablegram says that a polypus was removed from the left vocal cord. This may have been a fibroid polypus, a not uncommon form of benign neoplasm of the larynx, which would be quite properly removed by endo-laryngeal methods. Not so any malignant growth of the larynx, which would require laryngofissure for its removal. The excellent results, both as regards the saving of life and the preservation of a useful voice, which follow partial laryngectomy in the early stage of cancer of the larynx, would not justify any other method of treatment. The surgeons in attendance having adopted an endo-laryngeal method for removal of the growth, evidently believe it to be non-malignant in nature. There is here, as elsewhere, of course, room for error in diagnosis, and the uneasiness which is reported to exist may be partly due to this and partly due to the family history of the illustrious patient. The fact that the Emperor has postponed the granting of the cup for the Atlantic yacht race shows that he does not expect to be well quite soon, as he ought to be after the successful removal of a laryngeal polypus. Papillomata of the larynx on the other hand, although non-malignant in nature, frequently recur, and often give much trouble to eradicate. This disease, however, is not mentioned in the news which is to hand.

Charitable Institutions of Victoria.

The Inspector of Charities in Victoria, in his annual report, states that the position of charitable institutions at the close of the year was financially sound. The total receipts of the subsidised charities was £281,238, and the expenditure £277,619. Regarding the charities vote by Parliament, the Inspector states past experience has proved that the high Government grant tends to extravagance in management, whilst a reduced grant

Digitized by Google

results in economical management, without in any way impairing the efficiency of the institutions. Attention is called to the poor support accorded by municipal councils, and it is pointed out that as far as the hospitals are concerned they have power to enforce better treatment by refusing to admit cases of infectious disease, and thus throw the onus of relief upon the municipal bodies, who are required by the Health Act to make suitable provision for such cases. The amount received from patients under the form of admission ticket presented by the Treasurer for 1897-98 was £9586, while last year it reached £18,416. The institutions are supposed to inquire into the financial circumstances of each patient, and fix the amount that he is to pay, but in most cases the patient offers what he is willing to pay, and this is accepted without inquiry. It is contended that it is not the actual cost of patients which embarrasses an institution's finances. If finance committees were to scrutinise more thoroughly the expenditure involved in the upkeep of their institutions, they would recognise that many of the items could be curtailed, while others are prejudicial to economical management. Another heavy handicap is the cost of collecting donations, which in some cases range as high as 42 per cent.

Bacteria in Milk.

In the course of his evidence before the Select Committee on the Use of Preservatives in Food, Dr. Tidswell, principal assistant medical officer to the Government, said that he found that 10 grains of boric acid would delay the natural souring of milk for some hours; with 22 grains there would be no souring for perhaps two or three days; with 35 to 70 grains there was no clotting for a week. Milk as taken from the cow always contained micro-organisms. As soon as it got into the pails, cans, and various other articles, it took additional bacteria, besides others, from exposure to the air. By the time the milk reached the consumer, three or four hours after milking, the bacteria had increased by thousands. They underwent rapid multiplication, which vaired according to the temperature. For six or eight hours the multiplication was comparatively slow. Up to ten hours' time they found perhaps six, eight, or a dozen species, but after ten hours one group of species took command, viz., lactic bacteria, which found in the milk conditions that superlatively suited them. They increased right out of proportion to the others. After 30 hours they were practically exclusively present. They brought about acidity, and when that reached a certain proportion the milk soured. They went on acting until the milk became curdled. He had known them not only to kill everything else, but to kill themselves. There were also distinct bacteria producing putrefaction, and the milk putrefied according to the number that survived the lactic bacteria. The latter, in fact, protected milk from putrefaction. To boil the milk would destroy the lactic bacteria. Boric acid delayed the production of lactic acid, but did not kill the bacteria. It was not altogether a gain to delay the souring —Nature's warning not to use the milk— because something else was happening of unknown possibilities.

Sydney Water Supply.

The third and final report of the Royal Commission appointed to inquire into the Sydney water supply states that the urgent recommendations of the Commission as to an economical use of water were well carried into effect, the general public contributing by exercising care. The Cataract dam, which was intended to impound 18,200,000,000 gallons of water, was commenced about a year ago; the excavations for foundations were nearly completed, and the necessary plant was on the ground. It was confidently expected that the dam would be constructed to the full proposed height within two years. To avert, however, any danger of scarcity, should the rainfall be below the average before the completion of the Cataract dam, the water would be gradually allowed to accumulate while the dam was being built. The following additional works were in hand:—(*a*) New supply main from Pipehead to Ryde; (*b*) reconstruction of portion of the lower canal; (*c*) re-arrangement of 6 ft. and 4 ft. pipes at Potts' Hill; (*d*) additional pumping machinery at Ryde; (*e*) new service reservoir at Mosman; and (*f*) new service reservoir at Watson's Bay. The Commission advised that the remainder be proceeded with from time to time. The report added that surveys for new storage sites had been completed, and evidence had been given that nearly 27,000 million gallons could be impounded when required, by three concrete dams across the Cordeaux, Nepean, and

Digitized by Google

Chain of Ponds. These, with the Prospect and Cataract reservoirs, would impound 50,000 gallons, which would be sufficient for a year's supply without rain for a population of 2½ millions, or 4½ times the present population, at 60 gallons per head per day. If the catchment area were strictly preserved, and the water thoroughly strained before its admission to the service mains, its quality could always be maintained at a high standard of purity.

A Scientific Expedition to New Guinea.

A well-equipped scientific expedition is now on its way to British New Guinea. The leader of the party, which is designated the Daniels Ethnographical Expedition, is Major W. W. Cooke Daniels, an American, who has travelled extensively in the tropics; the other members of the party are Dr. C. G. Seligmann (late of St. Thomas's Hospital), Dr. W. Mersh Strong, (of Trinity College, Cambridge), and Mr. A. H. Dunning. Dr. Seligmann is going out as the representative of the Cancer Commission, to investigate pathological specimens. Major Daniel will devote himself to ethnology, and Mr. Dunning has charge of the camera and an apparatus for obtaining cinematographs. The expedition was organised under the auspices of the Royal Society and the Royal Geographical Society of England, and will spend a year in British New Guinea in general scientific work, and especially ethnography. The party will make Port Moresby their headquarters in New Guinea. Major Daniels states that one important question to settle in New Guinea is the delimitation of the various stocks or tribes of people who inhabit the island. This work must be done almost immediately if it is to be done at all, for whereas in the olden days tribal feuds and the lack of means of communication kept the various tribes each a distinct entity, under the rule of the Commonwealth the advance of civilisation must soon break down these barriers by producing a more or less homogeneous population.

The Late Sir Charles Nicholson.

Sir Charles Nicholson, Bart., M.D., LL.D., D.C.L., whose death was announced from London last month, at the age of 95, was a prominent figure in medical circles in Sydney in the early days. He came to Sydney in 1834, and took up his residence in Princes-street, afterwards removing to Jamieson-street, to the house at present occupied by R. Towns & Co., where he lived for many years. He was one of the members of the first medical board in New South Wales, appointed under Act 2 Vict., No. 22, and gazetted on December 12th, 1838, the other members being the Deputy Inspector-General of Hospitals (J. V. Thompson, Esq.), Dr. John Dobie, surgeon, R.N., Dr. Robertson (Colonial Surgeon, Parramatta), and Dr. Francis Lascelles Wallace, of Sydney. On January 7th, 1839, the Medical Board registered the following qualifications of Dr. Nicholson: Lic. Coll. Surg. Edin., 1832; M.D. Univ. Edin., 1833. Dr. Nicholson continued to take an active interest in the work of the board until July, 1848, when he resigned. On his elevation to the chair of the Legislative Council he gave up medical practice. He was appointed first Vice-Provost of Sydney University, and delivered an inaugural address at its opening in October, 1852. In 1854 he was chosen first Chancellor of the University, and was one of its most liberal benefactors. In 1857 Sir Charles Nicholson was made an hon. D.C.L. of Oxford University, and two years later was created first baronet of Luddenham, New South Wales. Queensland having been constituted a separate colony, Sir Charles Nicholson was nominated to the Legislative Council, and acted as first President, filling the office for four months. In 1862 he returned to live permanently in England.

The president of the Victorian Branch of the British Medical Association, Dr. D. A. Gresswell, and Mrs. Gresswell held a reception at the Pianola Hall, Collins-street, Melbourne, on the night of November 24th. About 200 were present, not only the medical profession being represented, but also members of Parliament and many branches of society. A very interesting programme was provided, and the following ladies and gentlemen contributed to the pleasure of the audience: Dr. D. A. Gresswell, Mrs. Malcolm Marsh, Mr. W. R. Church, Miss Maggie Neill, Miss E. Osborne, Dr. H. W. Bryant, Miss Jessie Neill, and Dr. J. P. Ryan. Miss Maggie Neill's recitation was greatly admired, and Miss E. Osborne's rendering of "Love the Pedlar" was so good that an encore was demanded by the delighted audience. Dr. Gresswell is to be highly congratulated upon a most successful evening.

Digitized by Google

BRITISH MEDICAL ASSOCIATION NEWS.

PROCEEDINGS OF AUSTRALASIAN BRANCHES.

New South Wales.

THE regular monthly meeting of the Branch was held at the Royal Society's Room on Friday, 27th November, 1903. Dr. Brady (president) in the chair. There were 50 members present. Visitor: Dr. Strong, of Daniels' Expedition to New Guinea.

Dr. LIPSCOMB exhibited a case of congenital genu recurvatum.

Dr. KIRKLAND exhibited a case of recovery from cerebral abscess after operation.

The PRESIDENT said he had a similar case to that Dr. Kirkland had exhibited, about three months ago, and the pulse in that instance had not risen after the operation, but had remained for about three weeks at a low range, 54-60. This was of interest, as the failure of the pulse to respond to operation for the evacuation of pus might indicate that the pressure on the brain had not been thoroughly removed, and that there might remain another abscess; but in the case referred to he had evacuated a large cavity, and the recovery of the patient had been complete without further interference.

Dr. THRING exhibited some pathological specimens: Lateral myomata complicating pregnancy. He also read a paper on "Abdominal Operations during Pregnancy." (See p. 547.)

Dr. MCKAY said years ago it was the axiom, "no operative interference with pregnant women," but this belief had altogether passed away. Formerly to operate on pregnant women usually resulted in the death of the patient, not because she was pregnant but rather on account of surgeons of that day knowing little or nothing of asepsis. In the cases brought under their notice that night by Dr. Thring, he (the speaker) considered that the surgeon could do nothing but operate. Some time ago a woman from the country consulted him suffering from gallstones, the patient being nearly mad with pain. The case was a difficult one, pregnancy of seven months complicating it, but he had operated successfully. In cases where there was retrofixation of the uterus he did Alexander's operation, in some cases with most satisfactory results. There were other conditions regarding such operations—ovarian cysts, cases of cancer of the uterus. He held that in myoma there might be used discretion with regard to operation.

Dr. WORRALL read the following notes on cases of abdominal operation during pregnancy:—(1) July 8th, 1897: A.D., ovarian cyst complicating pregnancy of two months; ovariotomy; easy convalescence; pregnancy not interrupted by the operation. (2) June 23rd, 1900: L.B., pregnancy of five months complicated by sessile myoma, undergoing myxomatous degeneration; enucleation of tumour; pregnancy uninterrupted; easy convalescence. (3) February 1st, 1900: Mary H., 23, 2-para, pregnancy of sixth week; complicated by pelvic peritonitis, due to gonorrhœal infection three months before; extensive adhesions of uterus and appendages to surrounding structures; *abortion* next day after abdominal section; good convalescence. (4) November 7th, 1899: Edith M., *æt.* 33, multipara, pregnancy of the fourth month recovery. (5) November 2nd, 1899: Grace D., 37, multipara, pregnancy of sixth week complicated by myoma; hystero-myomectomy; easy recovery. (6) December 1st, 1898: Emma W., 36, a 2-para, pregnancy of three months in the left horn of a bicornate uterus, complicated by a large dermoid cyst of the right ovary; removed the dermoid; pregnancy uninterrupted, and subsequent easy recovery. (7) August 28th, 1899: Mrs. S., pregnancy of the fourth month complicated by an inflamed adherent dermoid, with axial rotation of pedicle; ovariotomy; pregnancy uninterrupted; easy recovery. (8) September 24th, 1900: Margaret McC., 31, a 2-para; pregnancy of two months, complicated by pelvic abscess; this was evacuated p.v.; the uterus emptied by the curette, and a suppurating ovarian cyst with bilateral suppurating tubes were removed by abdominal section; streptococci were found in the pus; easy recovery. (9) August 5th, 1901: Elizabeth G., 25, a 3-para, pregnancy of two months complicated by ovarian cyst; ovariotomy; pregnancy uninterrupted; easy convalescence. (10) May 14th, 1903: Mrs. Jas. P., 34, a multipara; pregnancy of four months complicated by myoma of fundus uteri; this was enucleated; easy convalescence; pregnancy uninterrupted. (11) March 28th, 1903: Mrs. Dan C., 37, a 2-para; multiple myoma of uterus, complicating pregnancy of 3½ months; hystero-myomectomy; easy recovery. (12) August 19th, 1901: Clara B., 28, a 2-para; pregnancy of two months, complicated by uterine myomata; admitted with acute abdominal symptoms; vaginal cœliotomy disclosed no blood in pelvis nor other condition sufficient to account for the symptoms, save some adhesions of posterior surface of uterus to pelvic peritoneum; a small gauze drain was inserted into Douglas' pouch; abatement of symptoms, and uninterrupted pregnancy. (13) October 8th, 1903: Mrs. H. C., 40, 2-para; multiple myomata, complicating pregnancy of 4½ months; hystero-myomectomy; easy recovery. (14) July 22, 1903: Mrs. R. O'D., 32, multipara; pregnancy complicated by retroversion, with adhesions; separation of these by vaginal cœliotomy, and restoration of the uterus; no interruption of pregnancy. (15) The last case was one which has already been published of ectopic fœtus passed full term successfully removed by abdominal section during superadded normal uterine pregnancy of the sixth month; premature delivery took place the day following the operation. Of these 15 cases of abdominal operations during pregnancy, the notes say each case not only recovered, but made an easy recovery. I am inclined to think operations during pregnancy are actually safer than at other times, owing to the increased resisting power of the patients. Apart from the cases in which the uterus was removed, premature delivery occurred in only two. An analysis of the cases shows that *two* were enucleations of myomata complicating pregnancy; *four* were hysterectomies for myomata complicating pregnancy; *four* were ovariotomies during pregnancy (of these, two were dermoid cysts, one being a dermoid complicating pregnancy in one horn of a bicornate uterus); *two* were vaginal cœliotomies for acute abdominal symptoms caused by adhesions of a retroverted gravid uterus; *one* was abdominal section for pelvic peritonitis complicating pregnancy of two months' duration, due to gonorrhœal infection just prior to conception; *one* was abdominal section for pelvic abscess and bilateral pyosalpinx complicating pregnancy of the second month. These latter two are of great interest, as proving that

Digitized by Google

even very serious pelvic lesions cannot be held to be an inseparable bar to pregnancy. I would urge that the practitioner engaged to attend a confinement case should make a point of carefully examining his patient and ascertaining whether anything abnormal exists; by doing so he will often spare himself the disagreeable surprise of discovering during labour or the puerperium a pathological condition the non-recognition of which beforehand may have imperilled his patient's life, and caused loss and anxiety to himself. In myomata complicating pregnancy and producing symptoms or so situated as likely to cause obstruction during delivery, operation should be undertaken at once, regardless of the viability of the child. The mother's interests should be paramount, and by delay there is greater danger for her owing to probable complications, such as interference with the circulation of the tumour, its necrosis, and consequent sepsis, or infection of the tumour from abortion.

Mr. THRING, in reply, said Dr. Worrall's remarks were chiefly directed to the conditions which in the paper just read he had classed as *mechanical*, and which had been intentionally left—the object of the paper being chiefly to direct attention to those cases of acute infective disease of certain organs, and coming into evidence during the course of a normal pregnancy. Dr. McKay was good enough to say that in the main he agreed with the principles laid down in the paper. He (Mr. Thring) was sorry that he found it quite impossible to agree with Dr. McKay as to his line of objection in two classes of cases of which he had just spoken. Dr. McKay said that in all cases of pregnancy occurring in a retro-displaced uterus he was in the habit of shortening the round ligaments. This was certainly not always necessary or advisable. In the great majority of such cases, which were uncomplicated by adhesions, reposition of the uterus, and the keeping of it in place by means of a suitable pessary until it had become large enough for the body and fundus to stay above the brim of the true pelvis without a pessary, was sufficient. In many such cases, if properly seen to after the confinement, involution of the uterus and its supports took place *in the normal position*, and so operation was avoided, or if this failed to take place a fixation of the *non-pregnant* uterus could be done. Dr. McKay had said that if he had a case of pyo-salpinx which complicated pregnancy (a very unusual condition, be it said) he would leave it alone. This seemed to the speaker absolutely wrong—to be, in fact, bad surgery—and he unhesitatingly condemned the adoption of such a line of action.

Dr. J. S. McKAY read a paper on "Hæmatemesis following Abdominal Operations." (To appear in future issue.)

Dr. SCOT SKIRVING said he had listened to Dr. Stewart McKay's paper with profit and some surprise: profit, in that an apparently little known incident had been so clearly ventilated; surprise that the reader of the paper should present the matter as if it were something new and strange. For his part he had certainly known or heard of the existence of fairly gross post-operative hæmatemesis any time in the last 20 years. No doubt it was happily anything but a common event, but he had himself seen several cases—it might be a dozen in the course of his life, probably less—but, at any rate, he was justified in saying that he had seen such cases sufficiently often to be familiar with the condition, and to recognise the truth of Dr. McKay's clinical picture. Now, as to the explanation of this evil complication, he had not, he confessed, read any of the foreign authors quoted by Dr. McKay, but he had a fair knowledge of the scanty references to it by English practitioners, and further, of these things read to us this evening, he certainly was most impressed by the suggestiveness of Dr. McKay's own reference to the anatomical arrangement of the vascular supply of the parts concerned as a factor in causing the hæmorrhage under discussion. He had in the past, in a quite uncritical way, been inclined to associate these hæmorrhages with the co-existence of sepsis, a view apparently held by Dr. Halliday Croom. Further, he thought these bleedings occurred more often in abdominal sections dealing with the liver, or where there had been much meddling with the mesentery. The escape of blood from the gastro-intestinal mucosa in cases like those under discussion seemed to him somewhat on all fours with the vomiting of blood met with in diseases such as acute yellow atrophy of the liver. Whatever were the underlying physical and chemical causes—shock, sepsis, mesenteric traumatism, etc.—one thing at least was certain, that the event was of very evil import and but little amenable to treatment. He had an insufficiently founded impression that saline injection at least did no harm, and probably good, whatever might be the explanation of the benefit so gained.

Mr. THRING said that his experience differed greatly from that of Dr. McKay. In a fairly large experience of abdominal work of all sorts, apart from the occasional slight "coffee-ground" vomit which was seen where post-operative retching and sickness had persisted for a long time, he had never had a case of severe hæmatemesis after abdominal operation. With regard to Dr. McKay's explanation of the way in which this hæmatemesis was produced, he gathered that Dr. McKay attributed it greatly to "shock." Personally he had a feeling that "shock" was a sort of "very present help in time of trouble" to the abdominal surgeon who *was* in trouble, and he did not feel quite sure what or how much the term "shock" was intended to cover. Dr. McKay had been kind enough to explain, and he (Mr. Thring) could only add that if Dr. McKay had told him that he referred to that disturbance of the vaso-motor system which resulted in what had been so aptly described as "bleeding into the splanchnic area," then Dr. McKay's meaning would have been clear.

Dr. W. CHISHOLM said that his experience as to the kind of hæmorrhage referred to was similar to that of Mr. Thring's, and he was surprised to hear that Dr. Skirving had seen so many cases of it. This shows the benefit of attending these meetings, where one gets the experiences of others. He was glad to hear of death after operation being attributed to some cause other than sepsis. It was rather too much the fashion nowadays to attribute everything to sepsis. The surgeon never seemed to make a mistake; he always knows exactly where he is in the course of an operation, and does everything as it should be done, and if anything goes wrong this is put down to sepsis, due, of course, to some fault of the nurses or attendants.

Dr. MCKAY, in reply, said: Dr. Scot Skirving holds that post-operative hæmatemesis is a condition that has been known for years. I think one must grant that, but it is a remarkable fact that it is not mentioned in text-books, and is referred to by Robson and Moynihan alone with any fulness. If it were due to sepsis we would expect it to be common after all sorts of operations, and we should have expected it to have been mentioned by Sir Spencer Wells in the elaborate notes of his cases, as many of his sections died from sepsis. Yet I cannot find that he noticed it in any of his cases. During the last ten years I have

Digitized by Google

confess that I have only noticed post-operative hæmatemesis during the last three years, since I have been using the Trendelenburg position. I can only suppose that it has occurred in the practice of other surgeons who have not thought it of sufficient importance to record. The speaker thought that Mr. Thring spoke too lightly about shock. Next to sepsis it was the most important subject in connection with abdominal surgery. Mr. Thring was, of course, familiar with the profound alteration in the circulation that occurred so often after cœliotomy, and if he studied Cule's work he would speedily admit that that alteration in the circulation most frequently meant shock.

Dr. McMURRAY exhibited a parrot suffering from a skin disease, with microscopic preparation showing the acaries scabei.

Dr. FURNIVAL exhibited a specimen of urinary vesical calculus weighing 12 ounces.

Dr. RAMSAY SHARPE exhibited specimen of extensive Thiersch graft of the thigh.

Groom and Coachmen's Union.—The question of the working conditions was submitted for consideration. Resolved—"That a committee consisting of the president and secretary of the various medical societies be appointed to deal with the matter."

Council Meeting.

THE Council met at the Association Rooms on Tuesday evening, November 24th, 1903. Present: Drs. Brady, Crago, Hankins, Foreman, Rennie, Hinder, Pockley, Worrall, Abott, and Dick. The minutes of the previous meeting were read and confirmed.

New members elected: Dr. Q. Ercole, White Cliffs; Dr. E. C. G. Page, Grafton.

Report of sub-committee on the Midwives Bill was read by the Hon. Secretary and the report adopted.

Letter from the Attorney-General with reference to the medical witnesses fees was read.

Balmain Medical Dispensary.—Letter with reference to the fees payable to the medical officers of the dispensary was read. Resolved—"That the letter of the secretary of the Balmain Dispensary be forwarded to the medical officers of the dispensary, and also asking them to formulate their grievances for submission to the Council, without delay, with a view to their consideration before being sent on to the Balmain Dispensary."

Letter was read from Dr. Wilkinson stating that he desired to move the following resolution: "That in the interests of public health it is highly undesirable that poisons, such as boracic acid and salicylic acid, should be used as preservatives in milk, either in the ordinary state or concentrated."

Coachmen's Union.—The question of the action of this union with reference to hours of employment was brought forward by Dr. Abbott.

The HON. TREASURER reported the following credit balances: General account, £212 4s 10d; GAZETTE account, £61 1s 6d.

South Australia.

The final monthly meeting of the year was held at 8 p.m. on Thursday, November 26th, 1903, at the Adelaide University. Present—Dr. Jay (president) and 30 members and a visitor.

exhibits:—(1) *Empyema of the Maxillary Sinus with an Opening through the Hard Palate.*—Miss A. C., aged 18 years, gave a history of having had a discharge of offensive pus into the mouth for several years. On examination an opening was discovered in the left side of the hard palate close to the raphe at a point opposite to the first molar teeth. This was found to mark the exit of a sinus which passed outwards towards the alveolus and into which a probe could be passed some 10 centimetres without meeting with any obstruction. There was marked thickening of the mucous and periosteal coverings on this side of the roof of the mouth. Exploration of the maxillary antrum with Wichtwitz's trocar revealed an empyema of this cavity. The first molar tooth had been removed for caries, and the second bicuspid, also being carious, was now extracted. An opening through the socket of the molar tooth was made into the antrum, and the cavity washed out. The fluid returned partly through this opening and partly through the sinus in the hard palate, but no fluid could be got through the nose. Irrigation was practised for some days, followed by peroxide of hydrogen, with the same result. Nothing passed through the ostium maxillare even after sufficient time had elapsed for swelling of this opening to have subsided and the patency of the normal passage into the nostril to be restored. Occlusion of the ostium is quite a constant condition in old-standing cases of empyema, but, in my experience, two or three days' irrigation usually suffices to reduce the swelling which causes the obstruction and thus to make the passage free. In order to discover the cause of this stoppage and to thoroughly explore the interior of the cavity, the presence of a polypus or some such growth suggesting itself, the radical operation was performed, and a large opening was made in the canine fossa. Marked thinning of the anterior wall was found, an area the size of a shilling having become soft and carious. On introducing the index finger into the cavity, the mucous membrane was found thickened throughout, and had the usual soft greasy feeling to the touch. A small surface of denuded bone was also found on the inner wall about 0·75 centimetres above the floor, marking the entrance of the sinus in the hard palate. The cavity was unusually large, the vertical diameter being 6 centimetres, and free from septa, growths, etc. Perforation was made into the nostril with Krause's trocar, the cavity thoroughly cleared out and packed with nosophen gauze. After several such packings, the interior having been restored to a healthy condition, the opening of the canine fossa was closed by suturing the mucous and periosteal flaps together. The case is now doing well, and the discharge has nearly stopped. The point of interest in the case is the spontaneous evacuation of the antrum contents through a most unusual channel. I have not hitherto seen an opening occur in this position, nor can I find any record of such. The absence of the normal passage into the nostril had probably much to do with starting the empyema. It doubtless acted as a predisposing, and the carious teeth the exciting, cause of the suppuration. Absence or obstruction of the ostium maxillare would lead to diminution of pressure within the antrum, and this, in turn, would lead to exudation which, owing to decomposition and probable contamination from the carious teeth, would soon cause suppurative inflammation. But that the purulent contents should find exit through the comparatively dense bony structure forming the junction of the internal wall and the floor of the cavity, instead of through the much thinner bone forming the anterior wall, is certainly difficult to understand. The youth of

Digitized by Google

the subject may offer some explanation, seeing that the discharge must have commenced soon after the period of second dentition. The softened condition of this anterior wall suggests the idea that the opening through the palate may at times have become obstructed and that the discharge has been seeking to gain exit through the thinnest part of the cavity wall, this being the point of least resistance. (2) *An Accessory Salivary Gland, with Formation of Calculi, Suppuration, and Communication with the mouth through the Sublingual Duct.* —W. McI., aged 28 years, gave a history of having had a swelling some little distance below the ramus of the jaw for several years, and for the past two years he could, by pressing on the swelling, squeeze matter into the mouth through the sublingual duct. When first seen, a swelling about the size of a small hen's egg was found situated, as stated, below the jaw, and extended downwards to a point which corresponded to the middle of the thyroid cartilage. Suppuration had commenced, and deep fluctuation could be obtained. The mass was laid open, and its contents were found to include several large calculi (exhibited) in addition to the pus. The calculi yielded on analysis as follows:— —Calcium carbonate, 72·66 per cent.; magnesium carbonate, 2·25 per cent; insoluble, 0·69 per cent.; organic matter, 24·40 per cent. The organic matter was nitrogenous, and comprised also 0·69 per cent. fat and 1·18 per cent. soluble, in alcohol; no uric or oxalic acid. The calculi appeared from a section to be deposited concentrically round a well-defined but darker nucleus. There was also a doubtful trace of iron present. That this swelling was composed of salivary gland cannot be questioned; the presence of calculi, responding to the analytical test of the ordinary salivary calculi and direct communication with one of the salivary ducts demonstrates this fact beyond any doubt.

Dr. T. K. HAMILTON also exhibited:- (1) *Rhinolith removed from a woman, aged* 45 *years.*—There was a history of obstruction in the right nostril for four or five years past. A hard mass was found filling up the nostril, extending from the vestibule about 4 centimetres back. It was firmly impacted. On removal of the mass, which could only be effected piecemeal, its surface presented a mammillated appearance. There was loss of substance with some granulation tissue on the lower part of the septum, and indentation of the inferior turbinated all along. The symptoms were those of a foreign body obstructing the lumen of the inferior meatus. She could not breathe through the nostril, and on blowing the nose, air came up through the nasal duct. There was also a chronic discharge. No history of injury or of the introduction of a foreign body into the nostril could be obtained. The following constituent elements were found on analysis:— Calcium carbonate, 66·37 per cent; calcium phosphate, 5·30 per cent; magnesium carbonate, 2·92 per cent; insoluble matter, 1·10 per cent; organic matter, 24·31 per cent. The organic matter comprised 1·5 per cent. fatty matter and 1·61 per cent. soluble in alcohol, and nitrogenous matter the percentage of which was not determined. On grinding down a section, the layers appeared to be found concentrically over a dark reddish-brown substance as nucleus. (2) *A skull showing complete bony occlusion of both choanæ.*—The patient died in the Adelaide Hospital of phthisis, and this intra-nasal condition was recognised during life. The bony septa spring from the vomer some little distance in front of the posterior nares. The choanæ are symmetrical, but abnormally small in both the vertical and horizontal diameters. The superior maxilla is very much contracted laterally, almost as narrow as a child's, and the skull is dolicho-cephalic.

Dr. POULTON showed a negro whose penis he had completely removed, bringing the urethra out through the perinæum. The operation was done two months previously for epithelioma of the penis.

Dr. MARTEN showed a specimen of sarcoma of the testis, which had been affected with mumps, in a man *æt.* 37 years. He also showed a specimen of ring-carcinoma of the sigmoid and colon, which had caused complete obstruction. At the operation the bowel was sutured, except at one part, where a Paul's tube was inserted. The patient, aged 64 years, made a good recovery.

Professor WATSON showed the following:—(1) Polycystic kidneys, of probably congenital origin, from a man, *æt.* 70, who died of pneumonia.—*Dr. J. C. Verco.* (2) Pelvic floor of a woman, *æt.* 35, with double pyo-salpinx following, induced labour at three months. A posterior colpotomy on admission to the hospital afforded her temporary relief, but perforation of a subphrenic abscess resulted in a fœtid pneumonia, which carried her off.—*Dr. J. A. G. Hamilton.* (3) Annular carcinoma of pelvic colon successfully removed by means of Paul's tubes from a man, *æt.* 65, who had long suffered from indigestion, and latterly from obstruction.—*Dr. Humphrey Marten.* (4) Sacroma of testicle from a man, *æt.* 37.—*Dr. Humphrey Marten.* (5) Complete set of stereoscopic X-ray photographs of the arteries of the human body, as used by Mr. Baird, of Melbourne, in his surgical demonstrations. So far they have not been successfully imitated elsewhere.—*Mr. Freyett, B.Sc.* (6) Myomatous uterus of great size successfully removed from a childless woman, *æt.* 40, whose chief symptom was pain caused by pressure on the sacral plexus.—*Dr. J. A. G. Hamilton.* (7) Globular myoma, the size of a cocoanut, successfully removed from the corpus uteri of a woman, *æt.* 45, who suffered principally from intestinal and bladder trouble.—*Dr. Shepherd.*

Dr. NEWLAND then read a paper on a case of "Popliteal Aneurism" (to appear in a future issue), which was followed by a paper on "Movable Kidney," by Dr. J. A. G. HAMILTON (to appear in a future issue). This led to a long and interesting discussion, in which Drs. Jay, W. T. Hayward, Newland, J. C. Verco, Reissmann and others joined.

The next meeting of the Branch will take place on the last Thursday of next February.

Dr. H. H. WIGG said: At the last meeting of this Society Professor Watson indicated some of the difficulties which were encountered in the performance of Van Hacker's operation of posterior gastro-jejunostomy, and mentioned the condition in which the jejunal loop fails to effect good drainage, and the stomach contents instead of entering the efferent limb, flow into the afferent or duodenal limb chiefly, and, should the pylorus be patent, setting up Bilroth's vicious circle. That this complication is by no means rare, even in the hands of eminent European and American surgeons, I have had abundant evidence lately. In two cases the angulation of the loop was recognised and rectified before closing the abdomen by a lateral entero-enterostomy of the afferent and efferent loops. In another case the abdomen had to be opened on the third or fourth day and an anastomosis made with great difficulty. In a fourth case the patient died, and at the post-mortem a "water-logged" proximal limb of the loop had torn away the stitches round the stomach opening. In all these cases it appeared to me that the chief cause of the misfortunes was the unnecessarily long portion of jejunum used in the formation of the loop. When in Heidelberg last year I had the opportunity of studying the method

Digitized by Google

Petersen and others, and also by Professor von Mikulicz, of Breslau, by which the looping of the jejunum is practically avoided, and with this all danger of angulation. The operation is based on the fact that the jejunum as it issues from beneath the ligament of Freitz is at a considerably higher level than the great curvature of the stomach, and descends almost *vertically* with its free border (*i.e.*, that opposite to its mesentery) anterior, and separated from the posterior stomach wall only by the transverse meso-colon, so that when this structure is divided in the usual way, some 4 in. of the free border of the jejunum is in vertical contact with the stomach wall posteriorly. A *transverse* opening is made in the jejunum some 3 in. to 4 in. from its origin, and a parallel one of corresponding length in the posterior and lower aspect of the great curvature, and union effected by any of the usual methods. This operation is easily performed, and is most satisfactory in all cases where the dilatation of the stomach is not excessive. Watson Cheyne also insists on the undesirability of a long afferent loop, and unites that portion of the jejunum lying comfortably in opposition with the proposed opening in the stomach; and although differing from Petersen and others by making the incision in the long axis of the gut, he is careful to make the stomach incision parallel to the normal axis of the jejunum, and which, in the replaced viscus after operation, is directed downwards and to the (patient's) right. Cheyne's method, of course, admits of a larger opening, and is perhaps preferable in cases of great dilatation of the stomach. Dr. Giles, in speaking of the rapid progress of stomach surgery, instanced the abandonment of Loreta's operation in favour of pyloroplasty in certain cases of pyloric obstruction, but further experience again has shown that the constriction is apt to recur in a large proportion of cases, and drainage has to be effected by a gastro-duodenostomy or a gastro-jejunostomy, which would appear preferable operations to pyloroplasty in a great many instances.

Queensland.

The annual meeting was held on Friday, December 4th, at the School of Arts Hall, Brisbane. The President (Dr. Hopkins) was in the chair, and there was an attendance of 19 members.

The election of officers for 1904 was announced:—President: W. S. Byrne, M.D., M.R.C.P. Vice-Presidents: G. H. Hopkins, F.R.C.S.; W. N. Robertson, M.B. Treasurer: A. J. Turner, M.D. Secretary: A. B. Brockway. Council: J. Cameron, M.B.; A. B. Carvosso, M.B.; A. C. F. Halford, M.B.; D. Wield, M.A., M.D. Curator: R. O'Brien, M.B. Auditors: M. Culpin, L.R.C.P. & S.; J. Thomson, M.B.

The Council's report for 1903 and the treasurer's financial statement were read and adopted.

The retiring president, Dr. Hopkins, read his presidential address, after which Dr. W. S. Byrne took the chair. Votes of thanks were passed to the Council, coupled with the names of the president (Dr. Hopkins) and the secretary (Dr. Brockway), who replied; Dr. Hopkins making eulogistic reference to the work of the curator (Dr. Hawkes).

REPORT OF COUNCIL FOR 1903.

Your Council have much pleasure in presenting the report of the year's work. Twenty-three new members have been elected, two have been transferred from the New South Wales Branch, three have died—namely, Dr. Pring (of Beaudesert), Dr. Symes (of Hughenden), and Dr. Zwar (of Clermont)—and three have resigned, hence there have been an increase of 17 members, making a total of 116.

School of Arts for a place of meeting, and for a room for the library and museum are satisfactory, and appear to be the best that can be effected for the present.

The Hon. Treasurer's statement shows a credit balance of £91 8s 5d, being £32 17s more than at the end of 1902. This is largely due to the increase in the amount of subscription consequent upon the new regulations of the parent Association. As a result of the representations of your Council, who acted with the Councils of the other States, it has been decided to allow the subscription payable to London to remain at one guinea as heretofore. Your Council recommend that in future the subscription be £2 12s 6d for town and £2 2s for country members, including the receipt of the *B. M. Journal* and the *A. M. Gazette*. The response to applications for subscriptions has been very satisfactory, only four remaining unpaid at the present date. The Secretary desires to point out that subscriptions are payable in advance, and that early payments saves much trouble and some expense.

There has been an average attendance of nearly 15 at the monthly meetings, being two less than in 1902. Your Council much regret this apparent loss of interest on the part of members, and hope that it may not be noticed in 1904.

The more important business of the meetings has been as follows:—*February:* Ptomaine poisoning, Dr. B. B. Ham. *March:* Post operative suppression of urine, Dr. W. S. Byrne. The clinical aspects and modern treatment of pulmonary tuberculosis, Dr. Stewart (Dalby). *April:* Notes on the diagnosis and treatment of gall-stones, Dr. C. S. Hawkes. *May:* Filariasis, Dr. Flynn (Ipswich). *June:* Notes on the therapeutics of X-rays, Dr. Wilton Love. *July:* Aural discharges, Dr. W. N. Robertson. Total removal of the prostate by Freyer's operation, Dr. E. Sandford Jackson. *August:* Acute septic infection of the left temporal bone occurring during an attack of measles, Dr. W. F. Taylor. *September:* Exhibition of lantern slides of photographs of micro-organisms, Dr. Thomson; exhibition of microscopic slides with projection microscope, Dr. Wilton Love. *October:* Notes on the surgical treatment of trigeminal neuralgia, Dr. Hawkes. *November:* Clinical and pathological evening; exhibition, by the hon. curator, of specimens collected for the museum during that year.

The question of the relationship between the profession and the A.N.A. was freely and carefully considered, and a conference between your Council and representatives of the A.N.A. held, with the result that it was decided that medical appointments in connection with the A.N.A. should not be held by members of the Branch.

A very successful meeting of the Branch was held at Ipswich in May, and your Council wish for an expression of opinion from you as to the desirability or otherwise of holding one of the meetings of 1904 at Gympie or elsewhere.

Your Council desire to place on record the satisfaction of the Branch at the passage of the Dental Act, the working of which must do much towards improving the status of the dental profession in Queensland. As will be remembered, the medical profession is represented on the Dental Board by the President of the Branch (Dr. Hopkins), and the Secretary (Dr. Brockway.)

A conference took place during the year between your Council and members of the Pharmaceutical Society on the question of the free sale of poisons by chemists, and they hope that some good result may follow the deliberations which took place.

Digitized by Google

Francis, an old and prominent member of the Branch, prior to his departure for London, where your Council learn with pleasure he is now practising very successfully.

The interesting series of specimens with which the hon. curator (Dr. Hawkes) has commenced the museum serves to show how valuable such a collection may become in the course of a few years, and members are urged to assist the curator by forwarding to his care any specimens of which they may become possessed.

The library has been added to in the manner decided upon last year—by periodicals and annuals—and your thanks are due to those members who have contributed journals. Such of these as form complete sets have been bound, and can be obtained from the library in the usual way.

There have been 12 Council meetings, with the following record of attendance:—Dr. Hopkins (president), 9; Dr. W. S. Byrne (vice-president), 5; Dr. P. Bancroft (vice-president), absent on leave, 1; Dr. J. Espie Dods (hon. treasurer), 7; Dr. C. S. Hawkes (hon. curator), 10; Dr. A. J. Turner, 7; Dr. W. F. Taylor, 11; Dr. W. N. Robertson, Dr. Wilton Love, 7; Dr. Brockway (hon. secretary), 12.

Your thanks are due to the editor of the AUSTRALASIAN MEDICAL GAZETTE for consideration shown in publishing accounts of meetings and papers of members; and your Council desire to express their high appreciation of the value of the series of papers on the paroxysmal neuroses contributed by Dr. F. E. Hare: to Mr. Nelson, the secretary of the School of Arts, for his care and courtesy; to those members who have read papers and exhibited cases of specimens; to Mr. H. Bolton, who is resigning the position of assistant secretary after a long and valuable service.

Your Council regret that so little interest has been taken in the holding of office that there has been no need for a ballot; and especially do they wish to record their regret at the resignation from office of the Hon. W. F. Taylor, who has served continuously upon the Council since the formation of the Branch in 1892, and whose wise and mature advice has been always of great benefit in relation to its welfare.

In conclusion, your Council desire to congratulate the members of the Council for 1904 upon their election to office, and to express the hope that at the end of 1904 they may be able to report a year of useful and interesting work. On behalf of the Council,

(Signed) G. H. HOPKINS, President.
ARCHIBALD B. BROCKWAY, Hon. Sec.

Dec. 4, 1903.

Western Australia.

AN ordinary general meeting was held at the Perth Public Hospital on November 4th. There were present—Drs. Kelsall (president), J. M. Y. Stewart, Astles, Blackburne, Thompson, Ramsay, Horrocks, and Randell.

Dr. RAMSAY showed an old man who had been operated upon by Dr. Saw for retention of urine; the suprapubic wound was now completely healed, and urination was almost normal.

Dr. J. M. Y. STEWART showed an appendix verimiformis which he had removed from a single girl, aged 23. For the last three or four years she had had attacks of pain in right iliac region, never had enough to compel laying up, nor to seek medical advice. Dr. Stewart recommended removal to avoid acute appendicitis, and because no improvement followed medical treatment. Eleven pieces of solder were found in the appendix; she was a very rapid eater, and had lived largely on adherent to anterior and posterior part of right ovary; no ovarian trouble; stump of appendix was invaginated at operation. She made a perfect recovery.

The SECRETARY read a letter from the Attorney-General intimating that the wish of the Branch to have the form of oath taken in law courts made optional with the person taking the oath would be noted for future legislation.

An account for £13 16s 8d was passed for payment.

The sixth annual meeting of the Branch was held at the Perth Public Hospital on November 25th. There were present: Drs. Kelsall (chairman), Thompson, E. Black, V. Black, Blackburne, Newton, Ramsay, Horrocks, Leschen, and Randell. Dr. Leschen apologised for Dr. Astles, the succeeding President, who was absent through illness.

Dr. LESCHEN showed a stomach, taken from a case of carbolic acid poisoning. Under the ordinary treatment the patient had partly recovered, but subsequent narcosis set in, and death followed. On post-mortem there was great engorgement of stomach.

Dr. THOMPSON showed a horseshoe kidney and a specimen of tubercular ulceration of the larynx, the epiglottis being completely gone.

Dr. NEWTON showed a collection of gallstones which he had removed from the second part of the common bile duct, under the duodenum. At a previous operation they had not been found.

Dr. KELSALL showed a man from whose eye he had removed a piece of stone. The eye was doing well.

The retiring HON. SECRETARY (Dr. Randell) read the annual report, which showed that there were 54 members on the list. Three members had been elected during the year and three candidates were to be balloted for at this meeting; five members had resigned during the year. The number of meetings held and the average attendance this year showed a marked improvement over last year.

The Hon. Treasurer's (Dr. Blackburne) and the Hon. Auditor's (Drs. E. Black and C. G. Thorpe) annual reports were read. These showed that the finances were in a satisfactory condition. There was a balance of £19 14s 9d in the bank, whilst the balance of assets over liabilities was £79 8s 8d.

The Hon. Secretary was instructed to put bye-law 6 into force, and stop journals to members who had not paid their annual subscription.

The following new members were elected: James Brook Lewis, M.B., B.S. (Melb.); Rosamond A. Benham, M.B., B.S. (Melb); William Charles Grey, M.B., Ch.M. (Syd.).

The following office-bearers were declared duly elected:—H. Horrocks, M.D. (Lond.), vice-president; H A. Leschen, M.B., Ch.M. (Edin.), hon. secretary; G. H. S. Blackburne, M.B., B.S. (Melb.), hon. treasurer; H. F. Harvey, M.R.C.S. (Eng.), J. E. Ramsay, M.B. (Lond.), F. Tratman, M.D. (Lond.), ordinary members of Council: E. Black, M.R.C.S. (Edin.), C. G. Thorpe, M.B., Ch.M. (Edin.), hon. auditors.

Accounts amounting to £9 17s 6d were passed for payment.

Dr. J. E. RAMSAY moved and Dr. NEWTON seconded a vote of thanks to the past office-bearers.

Dr. KELSALL, the retiring President, replied in expressive terms on behalf of the retiring officers.

Digitized by Google

LITERATURE.

SURGERY.

Operative Possibilities in Cases of Advanced Carcinoma of the Breast.

Pilcher (*Annals of Surgery*) September, 1903), after a short historical review, in which reference is made to a paper by Mitchell Banks (1877), in which was definitely formulated the teaching that "whenever there was found an appreciable disease in the breast, the axillary lymph nodes were to be regarded as already involved in the disease, and that, whether enlarged glands could be detected by palpitation or not, the fatty and glandular contents of the axilla should be systematically cleared out in all cases as a part of the operation for the removal of a cancerous breast," reviews his own experience and results in mammary cases. The author has purposely excluded all cases that were operated upon by him previous to 1888, as before that time he did not carry out the more thorough operation which is now almost universally adopted. The number of primary cases which seemed to promise benefit from operation coming under the author's care between 1888 and 1900 was exactly 50. All of these were subjected to operation, but in seven the disease was too extensive to allow of complete removal. In all the cases the general procedure was conducted in accordance with the teaching that the incisions through the overlying skin should go wide of apparent disease, and that the breast and axillary lymphatics, with the connective tissue and fat in which they were imbedded, should be dissected out as an unbroken piece. The cases could be divided into the following classes:—

1. Ablation complete to the apex of axilla, without removal of any pectoral muscle. Two cases.

2. Ablation complete to apex of axilla, with removal of pectoralis major muscle only. Eleven cases.

3. Ablation complete to apex of axilla, with removal of both pectoral muscles. Twelve cases.

4. Ablation complete to apex of axilla, with removal of one or both pectoral muscles, and invasion of the supra-clavicular region. Eighteen cases.

In one of the cases in class 1 the patient remained well for six years, when intrathoracic disease developed, which proved fatal within a year. In the second case a recurrence took place in the muscle in 18 months, when the whole muscle was removed. The patient then remained well for five years, when a similar disease appeared in the other breast. This second breast was then removed, together with the contents of the axilla and the pectoralis major muscle. No local recurrence took place, but the patient died three and a half years later from cancer of the liver, ten years after the first operation.

In class 2, the first case remained well at the end of ten years; the second died of cerebral apoplexy one year after operation; the third case was well at the end of eight and a half years; the fourth remained well for six years, but developed carcinoma of the ribs during the seventh year, and was still alive, but feeble, at the end of nine years; the fifth case remained well at the end of eight years; the seventh case died two years after operation from intrathoracic metastasis; the eighth case was the second one mentioned in the first class; in the ninth case the supra-clavicular glands became enlarged in six months, and were cleaned out, but patient was well one year after operation, the last time heard from; the eleventh case died two years after operation, with local and regional recurrence. Of the 13 cases contained in these two classes, the after history of all but one being known, it appears that four have remained well for periods of eight to ten years; that three more enjoyed a period of immunity lasting for six years, and then in each case developed renewed cancerous disease; that in three cases evidences of recurrence, in distant regions, showed themselves within three years after the operation, and that in but two cases did local recurrence take place. It is pertinent and important to remark as to these cases that they comprise those in which, of all those which presented themselves for treatment, the disease apparently had made the least advance. In class 3 the cases were more advanced at the time of operation, but one lived five and a quarter years without recurrence, two are still well at three and three and one-third years after operation. Six died at periods varying from 12 months to five and a-half years after operation; in all but one of these cases the development of supra-clavicular disease was among the earliest evidences that the primary operation had been incomplete.

Of class 4 but two have remained well. These two cases had passed respectively six and four and a-half years since the operation in good health. The experience of these years has emphasised most strongly to the consciousness of the author that nothing is more illusive than the apparent local extent of a cancerous process. It cannot be too strongly emphasised that practically *every case of cancer of the breast, when it has reached that degree of development by which a palpable tumour is formed, is already in an advanced stage*, such an advanced stage that, as a rule, metastatic deposits have already begun to be formed, beginning in the near-by lymphatic paths, and that only by an immediate far-reaching removal of both the discernible disease and the adjacent tissue that may enclose metastatic deposits can even a moderate probability of permanent cure be assured.

The author concludes his paper with the following paragraph:—"As the knowledge becomes more general as to what has been and can be done by surgery for the cure of cancer of the breast, less hesitancy will be displayed by its victims in at once availing themselves of the help which is offered, and the proportion of permanent cures effected will be increased."

Prostatectomy and Galvanocaustic Prostatotomy (Bottini's Operation): Their Present Status in the Radical Treatment of the Hypertrophied Prostate Gland.

Willy Meyer (*Medical Record*, October 24th, 1903) contributes a paper on the above. For five years—October, 1897, to October 1902—the author performed Bottini's operation on all cases of prostatic hypertrophy that came under his care. In not a single case was the operation refused as long as the patient asked for it. Fifty-nine patients were operated upon by him during that time; 52 recovered, 7 died. Two of the seven died from the immediate effects of spinal anæsthesia. The after treatment was carried out by the author himself in all the cases, and careful records kept. The paper will prove of interest to those engaged in bladder surgery, as full details are given of the causes of death, of the complications that occurred, and of the results attained. Thirty-four of the patients were alive at

Digitized by Google

the time the paper was written. Special enquiry was made as to the effect of the operation on the sexual power, with the result that impotence was produced in two out of 23 cases, and in another a weakness that had existed before the operation was increased. Since October, 1902, Meyer has selected his cases and has performed six perineal prostatectomies and four Bottini operations. He now invariably recommends the cutting operation in all cases of large hard prostates. He has arrived at the following conclusions :—

1. The operations making a direct attack upon the enlarged prostate gland are preferable to those aiming to exert an indirect influence.

2. We have two useful procedures for the direct treatment of the enlarged prostate gland, *i.e.*, prostatectomy and galvanocaustic prostatotomy (Bottini's operation).

3. In selecting the method indicated in the given case we must individualise and be guided by anatomic, pathologic, and social conditions.

4. Prostatectomy is the most radical and most surgical procedure ; it should be the operation of choice whenever promising success.

5. Perineal prostatectomy offers advantages over the suprapubic method, since it enables the operator to do the operation under the guidance of his eyes.

6. Debilitated patients who seem unfit subjects for the more radical operation should not be at once relegated to catheter life, nor should prostatectomy be performed in order to "let them down easy" ; they should be advised to have Bottini's operation done if possible.

7. Surgeons should familiarise themselves with both methods, in order to be in a position to do justice to their patients.

8. It is the duty of those refusing to do Bottini's operation under any circumstances to nevertheless advise the latter in cases in which the patient asks for more radical relief and the operation with the knife seems contraindicated.

9. Further carefully-compiled statistics as to the late results of both operative procedures—preferably in the hands of one man—are desirable in that they will increase our knowledge with reference to the selection of the proper method in the individual case.

The Operative Treatment of Umbilical Hernia.

Warren (*Boston Medical and Surgical Journal*, October 8th, 1903) contributes an article upon the above. This form of hernia has generally been considered by surgeons as more liable to relapse than inguinal or femoral hernia, and with truth ; but the percentage of recurrences is constantly growing smaller. This is due chiefly to an accurate suture of the different layers in a manner that will bring them into close contact without too much tension. The hernial sac should be exposed by two slightly curved incisions on the median line, which should meet and blend above and below—an incision sufficiently long to expose the outer walls of the sac as far as the neck of the sac and the surrounding aponeurosis. The sac should then be opened and the contents freed from adhesions and returned into the abdominal cavity. If the omentum is much matted together it had better be excised at a point below the portion which usually occupies the sac. The sac should then be carefully excised, care being taken to secure such vessels as may be divided. The shape of the opening in the abdominal wall is now obvious, and is found to represent an oval with the long diameter lying at right angles to the linea alba. The peritoneum should, if possible, be separated from the fascia and sutured with fine sutures. The edges of the hernial ring consist of the tendinous raphé formed by the blending of the aponeuroses of the abdominal muscles. The accurate coaptation of these edges is of the greatest importance. The anatomical closure of this opening would apparently be effected by bringing the right and left edges together, but this cannot be done without great tension in the centre of the line of suture, making a wound with depressed and tense centre and raised and relaxed ends. The vertical diameter of this opening is always the shorter of the two, and if the lower and upper margins of the ring are brought together with forceps they can be held in that position without the exercise of any appreciable degree of force. The parts seem to fall naturally together if the opening be closed transversely. Silk is the suture material used by the author. A new feature in the surgical treatment of these cases is the excision of the thick layer of adipose tissue. The median incision is prolonged from within about two inches of the ensiform cartilage to the transverse line above the mons Veneris. The skin and adipose tissue are then dissected away from the aponeurosis right back to the loins, and the bleeding points controlled, the fat is then sliced off from the flaps with a long knife. The skin is attached to the aponeurosis by two or three catgut sutures, to prevent dead spaces, and the edges of the skin united in the usual way. Notes of several cases treated in this way, *i.e.*, with the transverse suturing of the peritoneum and aponeurosis, are given, and the author concludes his paper with the following remarks :—"There remain 11 cases operated upon by the method advised in this paper. In only one of these cases has a recurrence been reported during periods varying from one to 13 years. In the case in which a recurrence took place the hernia was as large as a child's head. This gives a record of about 9 per cent. of recurrence after operation—a record which, although it does not quite equal the very satisfactory results of operation for inguinal and femoral hernia, shows that this method of operating for umbilical hernia bids fair in time to rival them."

Some Observations on the Surgical Treatment of Gallstones, and the Complications they Produce.

In a clinical lecture published in the *Birmingham Medical Review*, September, 1903, Barling discusses the above. While pointing out the fact that the diagnosis is earlier and more correctly made now than formerly, he states that even at the present time years of repeated discomfort are inflicted on patients because painful attacks of *spasms*, *wind*, and *indigestion* are insufficiently investigated, and are only recognised as due to gallstones, when some undesirable complication leads to a thorough examination. The absence of jaundice appears to be the chief stumbling-block in the way of diagnosis. For gallstones to cause jaundice they must occupy the common bile duct for a considerable time, probably 24 hours. In doubtful cases an exploratory incision is not only *justifiable* but *demanded* in order to complete the diagnosis and at the same time to cure the patient. He illustrates this by quoting a case in which a patient complained of pain in the right hypochondrium and in the right side of the back, with nausea. The attacks were severe and frequent. Exploratory incision revealed the fact that the gall-bladder was healthy, but there was a movable right kidney, which was dealt with, and the patient cured of her symptoms. When the

Digitized by Google

diagnosis sure, and the patient is a person with otherwise healthy organs, there should be no hesitation in advising operation. Delay in operative interference generally means waiting for complications, some causing merely inconvenience, others danger, and some positive disaster.

Why wait for these misfortunes, with their added risks and inconveniences? If the gallstones are removed before any complications have arisen, there is hardly a simpler or safer operation performed on the abdominal cavity. On the contrary, where the common duct is choked by a stone, the risks of operation are considerably increased from the long exposure of the patient on the operating table, and from the increased liability to infection. If a suppurative peritonitis has been set up, it is hardly necessary to say that the risk to life is great. Reference is made to the almost constant presence of infective organisms in the gall-bladder when gallstones are present. In 10 cases where cultivations had been made by Dr. Hewetson, in only one case did he fail to obtain a growth. The germ most commonly found has been a streptococcus, not always, but generally the pyogenes; next on the list comes the bacterium coli, and then a sporulating bacillus, and occasionally some other organism, such as the bacillus typhosus. Details of the operations on three cases are given.

THERAPEUTICS.

The Treatment of Plague by Large Doses of Carbolic Acid.

Atkinson (*Lancet*, September, 1903) records the results of treatment of six cases of bubonic plague at the Kennedy Town Hospital, in Hongkong, with large doses of carbolic acid internally. He first refers to the report of a case previously published in 1899, in which carbolic acid was commenced on the day after admission, 12 grains being given every two hours for 60 hours; after this the dose was six grains every four hours. On the seventh day some carboluria appeared, which disappeared on reducing the dose to two grains twice daily. In 1900 a case of pneumonic plague was successfully treated in a similar way by large doses of carbolic acid. In the series of cases now reported, plague bacilli were found in the blood in all, and they rapidly disappeared from the blood in all the cases after the use of the carbolic acid in the large doses already indicated, and in all recovery ensued with no unpleasant sequelæ. The use of the carbolic acid was accompanied by a general tonic and stimulant treatment, with abundant fluid nourishment, and a fair amount of alcohol.

Urotropin in the Pyuria of Tabes Dorsalis.

Overend (*Lancet*, October, 1903) gives an account of a case of tabes dorsalis in which he found marked benefit from the use of urotropin. The patient was a man of 36 years of age, who presented all the classical symptoms of this disease. About April, 1899, he first noticed some incontinence of urine, which gradually became worse until he was completely incontinent, and was compelled to wear an indiarubber urinal constantly. In March, 1901, he was advised to use urotropin for the bladder condition, but he did not persevere with it. In September of the same year he contracted influenza, but recovered in a few days. The urine was ammoniacal, and contained much pus. He was then passing nearly two pints into the urinal during his sleep, which was restless and disturbed. He became depressed at He was again advised to take urotropin. In February, 1902, he stated that he had taken eight grains of urotropin daily for five months, and he felt much better; there had been no hæmorrhage. The urinal was now dry at night time, and he passed voluntarily about two pints without pain during the day, and the urinal contained less than three-quarters of a pint in the morning. In January, 1903, he experienced, for the first time for two years, a desire to micturate. Since then his urine has become free from pus and albumin, is acid in reaction, and retains this reaction after standing for 24 hours. The urinal now contains not more than half a pint of urine in the morning, and only a few drops at bedtime.

Organotherapy in Addison's Disease.

An instructive article on this subject appears in the October issue of the *Practitioner*, by Edward W. Adams, of Sheffield. He states that this method of treatment has now entered on its second decade, and therefore sufficient time has elapsed to judge of its utility and its future prospects. He collates 105 cases from the literature in which this method of treatment has been adopted. He groups them as follows:—Class 1.—Cases in which alarming or fatal results were presumably or possibly due to the treatment, seven cases. Class 2.—Cases uninfluenced by, or deriving but doubtful benefit from, the organotherapy, 49 cases. Class 3.—Cases in which marked improvement coincided with the treatment, 33 cases. Class 4.—Cases in which permanent benefit (? cures) accrued apparently as a result of the suprarenal feeding, 16 cases. No case is included under the latter class which has not been under observation for at least a year. Putting together the whole of the evidence adduced, whether for or against, there remains a residual conviction that suprarenal medication has been of real value in a certain class of cases of Addison's disease, but in what class only an imperfect and unsatisfactory answer can be given at present. The treatment has been apparently signally successful in some of the least promising cases, where it has been used late in the disease and upon patients who have had complicating tubercular lesions elsewhere. Even an extreme degree of asthenia has not always mitigated against a degree of success which has seemed quite extraordinary. On the other hand it has signally failed in the simple uncomplicated disease taken early. Four cases, in which it is definitely stated that the affection followed upon injury or over-exertion, all improved markedly. The preparations used in the treatment and the method of administration have varied greatly. Most of the cases reported as permanently benefited were treated solely by the administration of the substance by the mouth; there appears to be serious objections against its use hypodermically. Recent research has appeared to show that when injected into the tissues, the active principle is oxidised and rendered inert. In view of the post-mortem evidence it would seem that the cases most likely to improve are those in which the tubercular process is a chronic sclerosing one, and where the other organs are fairly sound. This, in the main, coincides with Byrom Bramwell's and Shoemaker's opinions, though in view of the fact that material benefit was obtained in some cases in which post-mortem the suprarenal glands have been found absent or reduced to fibrous tissue, it is impossible to accept in its entirety the latter's supposition that "cases in which organotherapy is useful are probably those in which a portion of the gland or

Digitized by Google

glands are functionally potent. The writer sums up as follows:—1. There would appear to be a certain class of case of Addison's disease which derives indubitable benefit from the use of some form of suprarenal substance, though in any given case it remains up to now impossible to determine its probable response to the treatment. 2. In any given case of the disease, selected haphazard, the probability obtains that disappointment will follow on the institution of organotherapy; but that probability is very distinctly less than that attaching to any alternative method of treatment at present known. 3. The last word upon the preparation to be used and its methods of administration remains yet to be said. The problem seems to be to get a sufficient and continuous dose of the pure and active principle unchanged into the blood stream. Intra-venous injection is impracticable.

Veronal as a Hypnotic.

In an article in *Fortschritte der Medicin*, July 1st, 1903, Lotsch advocates the use of veronal in cases of insomnia. He gives from 4 to 15 grains, the smaller dose to begin with, until the effect on the individual patient is known. When given in these doses no ill effects have ensued, but in larger doses an erythematous eruption has resulted in some cases. It may be given with advantage in the insomnia of phthisis and heart disease.

DISEASES OF THE EAR, NOSE AND THROAT.

General Anæsthesia in Operations in the Upper Air Passages.

Bennett, in a paper on this subject, at the New York Academy of Medicine, February, 1903, insists that as the safety of the patient is the first consideration, that agent which experience has proved to be safest should be used, if it fulfils the requirements of the case. For operations which can be completed in half a minute, and in which immediate consciousness is not objectionable, nitrous oxide is reasonably satisfactory and very safe. Nitrous oxide and oxygen is more satisfactory, as a longer anæsthesia can be obtained, and on account of the freedom from asphyxia which complicate ordinary gas inhalations. For prolonged operations, ether is unquestionably the safest anæsthetic, and should be the choice, if not contra-indicated by certain unusual conditions such as acute bronchitis or pneumonia, acute nephritis, or marked respiratory obstruction. A very particular value of ether is the possibility of safely obtaining long periods of anæsthesia after removal of the inhaler by previously pushing the anæsthetic to a point of deep narcosis.

Stenosis of the Larynx.

Smarthwaite (*Northumberland Medical Journal*, April, 1903) discusses the nature of the acute œdema, more especially the septic form which occasionally develops in the course of tubercular, malignant, or syphilitic laryngitis. A patient suffering from one of these forms of laryngeal disease may be at his work, and may then suddenly become a victim to this form of œdema. Unless tracheotomy be immediately performed, the patient speedily dies. This œdema isdue to the breathing down of the diseased laryngeal tissue. In this way a path is opened to the passage of extraneous bacteria. These micro-organisms in their toxins excite the vasomotor nerve endings, causing a sudden dilatation of blood-vessels, with discharge of serous or sero-sanguineous fluid into the loose tissue beneath the mucous membrane. If tracheotomy is impossible for any reason, the swollen and œdematous tissue should be scarified, and cold applications to the neck, in the form of ice or of Leiter's tubes, may be used. But in all cases of these laryngeal affections, in which acute œdema is prone to supervene, the larynx should be treated with local antiseptics, by which the chance of the entrance of micro-organisms is reduced to a minimum. Further, such patients should gargle with an alkaline lotion, followed by laryngeal syringe of menthol.

Scarification in Chronic Hypertrophic Pharyngitis.

Escat (*Archives Internationale de Laryngologie*, August, 1903) advocates this method in cases that are not improved by the usual means. Brushing with solution of iodine, sprays, and constitutional treatment prove effective in most cases; but where there is much interstitial thickening, he believes scarification offers the best chance of success. An antiseptic gargle is used for five minutes, followed by cocaine, then the soft palate and uvula are scarified longitudinally and transversely. The hæmorrhage soon ceases. An application of Ranault's solution of iodine or zinc chloride, 1 in 30, completes the operation. The pillars of the fauces and the posterior wall of the pharynx can be treated at a later date. Should there be any dysphagia, he recommends a gargle of menthol, cocaine, and borate of soda.

The Limits of Variation in the Depth of the Mastoid Antrum.

Kerrison on (*Archives of Otology*) concludes from a series of measurements:

1. That in operation upon the mastoid process the antrum should always be approached from the nearest point upon the mastoid cortex, which, in the great majority of bones, is the small triangular space behind the spine of Henle.

2. That this point of attack not only furnishes a guide to the site of the antrum, but also gives fairly accurate data as to the depth beyond which it is not safe to proceed.

3. That the depth of theantrum is always less than the length of the postero-superior wall of the meatus; that in the great majority of bones it is not over 12 m.m., is often very much less, and is never greater than 15 m.m. or $\frac{5}{8}$-inch; and, therefore,

4. That in a surgical attempt to expose the antrum, a depth of $\frac{5}{8}$-inch should be regarded as an extreme limit of safety.

Treatment of Catarrhal Deafness.

Swan (*N. Y. Medical Journal*) says that little can be done in these cases if the skin is inactive, and that personal hygiene must be considered of paramount importance. Cold baths and friction are very useful. A turpid liver frequently thwarts the best efforts to get local treatments through to the middle ear. Dyspeptic and intestinal disturbances, as well as uric acid and uterine troubles, produce an irritability of the mucous lining of the head quite sufficient to necessitate their correction before the tubes will remain normally patent. Vigorous exercise can be made a great aid in relieving the distended vessels. The author urges active arm exercise every morning as a routine. With the correction of these conditions, a correction of morbid rural state makes the disease, as a rule, non-aggressive and capable of much improvement.

Digitized by Google

London.

(FROM OUR OWN CORRESPONDENT.)

Epsom College—Kernig's Sign—London School of Tropical Medicine—Harveian Oration—Gastric Erosion—Cordite Intoxication—Death of Mr. Walsham—The Cradock Sanatorium and Thermal Baths Company—King's College Hospital.

THE Council of the Royal Medical Benevolent College at Epsom have come to a commendable resolution to take the necessary legal steps for the purpose of changing the name of the institution to Epsom College. It has long been believed by many of those best qualified to form an opinion that the term "benevolent" in the old title was a distinct hindrance to the growth of the school, as it tended to indicate that all the students were in receipt of charitable assistance in their education. Again, the word "medical" in the old designation gave to the outside world an idea that the college was a class school, established and endowed solely for the education of the sons of medical men. Both words were calculated to give an erroneous impression as to the nature of the college and the scope of its usefulness. All who are interested in the good work it carries on will rejoice that these hindrances to its progress have been wisely removed. The charitable side of the institution will be in no way altered by the change of title; it is indeed intended that, in a less obtrusive way, this will continue to be kept before the public eye, and, with a view thereto, a standing order of the council will be passed directing that in documents issued from the office in London the following words shall appear below the title: "Established in 1855 as a public school with a Royal medical benevolent foundation."

The value of Kernig's sign as an aid to diagnosis has considerably diminished since it was first described. Kernig looked upon it as pathognomonic of spinal lesions, but of late it has been frequently recorded as occurring in other disorders, notably in typhoid fever, in which disease Carriere found it a marked phenomenon in 22 out of 50 cases; less marked but present in 15 others, very ill-defined in 7, and wholly absent in the remainder. According to this observer, Kernig's sign may be present in typhoid fever from the third to the sixteenth day, but is exceptional either before or after these dates. It usually disappears about the end of the second week, but may reappear should there be a relapse. Although in itself Kernig's sign has no prognostic importance, it is suggestive to note that Carriere had recorded its presence in all his typhoid cases which proved fatal.

The number of students who have entered the Tropical School for the current session is 27, and it is indicative of the growing importance and popularity of this newest department of organised medical study that this is the largest sessional entry since the school opened. Of the 27 students, most of whom have entered for the whole course, it is of interest to note that nine belong to the Colonial Service, two to the Foreign Office, one to the Jamaica Service, one to the Royal Army Medical Corps, one to the South African Police, one to the Armenian Foreign Christian Mission Society, and the remainder to civil practice. The curriculum has been re-arranged to better suit the requirements of those attending the classes, and the laboratory is now fully equipped and complete in every detail. The new museum and lecture-room will be ready for occupation in a few weeks' time. The rapid and successful Patrick Manson and those who are associated with him in carrying on the work.

The annual Harveian oration was delivered at the Royal College of Physicians on October 19th by Dr. W. H. Allchin. In the course of an eloquent address Dr. Allchin pointed out that, although the name of Harvey was for ever linked with a great and far-reaching physiological truth, it was his previous knowledge of anatomy which had enabled him to clearly understand what he observed, and which eventually led him to his great discovery. The orator then set himself to consider how far the ascertainment of the facts of structure, as a necessary preliminary or adjunct to experimental methods, had influenced the progress of biological knowledge, and what might be the limitations and extensions of the subject in that direction. He did not suggest that anatomy, however complete and precise, was of itself sufficient to furnish a knowledge of function, and he admitted that much physiology had become known, even to a considerable approach to exactness, without a corresponding knowledge of its structural basis. He referred to the fact that while a konowledge of the histology of many of the tissues had almost reached its limits, the nervous tissues were those concerning the minute anatomy of which least was yet known. The outstanding feature in the progress of histological research was, in his opinion, the recognition of the cell as the tissue limit. This fundamental fact had served to give completeness to the views held concerning the genetic relations of the several components of the organs; it had led to the knowledge that the life of the organism is but the life of the cell, differing only in degree of completeness, and to the full realisation of the dependence of specialisation of function upon differentiation of structure. The question of the intimate structure of the living cell protoplasm must, so far as it was capable of investigation by the microscope, be left at present in its uncertain state, and though, with further improvements in method, this deeply interesting problem might at some future day be solved, it none the less seemed certain that, however far the eye might be able to penetrate, there would still remain behind and beyond a molecular or atomic structure for the understanding of which other means of scientific enquiry must be employed. In conclusion, Dr. Allchin said that whilst he had endeavoured to illustrate the relationship of physiology to anatomy, whether normal or morbid, the general tenor of his remarks would have indicated that when the limits of visibility, even with the most perfect instruments, had been reached, the separate investigation of structure and of function no longer became possible. The molecular constitution, chemical or electrical, of living matter became conceivable only in terms of action, and function and structure were but aspects of each other. No deeper secrets of Nature existed to be searched out by observation and experiment than these; none would more benefit mankind in their discovery; and to that investigation, therefore, in obedience to the precept of Harvey, he exhorted his audience to turn.

An interesting communication was made to the Clinical Society at its meeting on October 8th by Sir Dyce Duckworth and Mr. Butlin on a case of erosive gastric ulceration with severe hæmatemesis. The patient was a woman of 29 years of age, who had for three weeks suffered from pain after food, but had experienced neither vomiting nor hæmatemesis until the

Digitized by Google

day before her admission to St. Bartholomew's Hospital on November 21st, 1902. After admission, the bleeding persisted in spite of adrenalin, chloride, and other hæmostatics. On December 24th Mr. Butlin opened the abdomen and the anterior stomach wall, but nothing that could be called an ulcer was found in the mucous lining. In the greater curvature near the pylorus, however, the mucous membrane, over an area of several square inches, was of a markedly deeper tint than elsewhere, and it was traversed by slight fissures and also presented numerous small points from which blood slowly oozed. Mr. Butlin ligatured no fewer than nine of these points, and then completed the operation in the usual way. The patient made a perfect recovery, and on February 4th was well enough to be sent to a convalescent home. This case affords striking confirmation of the fact, not generally appreciated, that copious and repeated hæmatemesis may result from simple erosion without actual ulceration of the gastric mucosa. The patch of pink mucous membrane where the oozing points were sutured was, in all likelihood, the situation at which subsequently ulceration might occur; but in the event of a fatal hæmorrhage taking place before the stage of ulceration were reached, it is conceivable that no actual lesion would be discoverable after death. From the experience of this case—and others like it have been recorded by Dieulafoy and others—it would seem that the occurrence of sudden profuse and repeated hæmatemesis is warrant enough for surgical interference, and that by such measures a condition which is at first no more than a superficial erosion may be prevented from becoming an established ulceration. The suddenness of onset is a point of superlative diagnostic importance, because after ulceration the occurrence of hæmorrhage is always preceded by pain, pyrosis, and other evidences of gastric disturbance.

The *Journal of the Royal Army Medical Corps* for October contains an article by Major J. W. Jennings, R.A.M.C., on a new intoxicant, whose use as such he discovered during the recent South African war, viz., cordite. This substance, which consists of nitroglycerine, gun cotton, and mineral jelly, enters into the composition of the Lee-Metford cartridge. It has a sweet, pungent taste, and is only slightly soluble in the mouth. If a few strands be sucked for a short time they produce a racking headache with throbbing noises in the ears, thirst, dulling of the mental faculties, and an almost uncontrollable desire to sleep. When taken in solution, as with tea, it causes an almost immediate effect of exhilaration, which continues for two or three hours and ends in deep slumber, followed by a stupor lasting from six to twelve hours. If the cordite is dissolved in a glass of beer it will produce rapid intoxication in a man who can normally drink five or six pints without being in the least degree affected by it. As the intoxicating effects of the substance pass off, the man is imperfectly able to realise his surroundings and is mentally obtuse; he then develops a more or less severe headache, with prominence of the eyes, and often twitch of the facial muscles. Major Jennings relates some curious examples of the extraordinary effects which cordite, taken in this way, produces, and quotes at length a series of statements and experiences related to him by soldiers who had fallen into the cordite habit.

Not only St. Bartholomew's Hospital, but the profession at large, is the poorer for the loss of Mr. William Johnson Walsham. Mr. Walsham was born in 1847, was educated at Aberdeen University and at St. Bartholomew's, and, after qualifying, returned to St Bartholomew's, where he successively occupied the junior posts which finally led him to the staff, on which he was appointed assistant surgeon in 1881, and full surgeon in 1898 on the retirement of Sir Thomas Smith. His fame rests no less on his skill as a great and accomplished surgeon than on his success as a teacher and writer; his "Surgery, its Theory and Practice" having passed through no fewer than eight editions, remaining to-day as popular a treatise as when it was first written in 1887. Until a few months ago Mr Walsham was lecturer on surgery to the Medical School of St Bartholomew's Hospital, and he held, in addition, many important appointments For some months before taking his summer holiday his health was precarious, but it was hoped that a long rest and change of surroundings might at least effect some improvement. These anticipations were, unfortunately, not realised. After a serious relapse at Wiesbaden, he was brought home, but his disease rapidly gained ground and he died at 77 Harley-street on October 5th.

A company has recently been promoted for the purpose of establishing sanatoria for treatment of phthisis in South Africa. It is proposed, in the first place, to establish a hydropathic establishment at Cradock, where there are a number of sulphur and saline springs, and to equip a sanatorium suitable for the application of the "open air" method of treatment. Subsequently it is intended to erect similar institutions in suitable situations throughout Africa. When a series is established, patients will be transferred from one sanatorium to another, according to the indications afforded by their symptoms. There can be no doubt that the climate of this part of South Africa is peculiarly suitable for the treatment of tuberculosis, and it is to be hoped that the capital which the company requires and on which it guarantees 3 per cent. interest, will be speedily forthcoming, especially as the scheme has a philanthropic aspect which ought to appeal strongly to all who have at heart the interests of those who suffer and are at the same time poor. The promoters hope to save enough out of the income received from paying patients to gratuitously treat a certain number of cases. What that number will be must obviously depend upon the success which this ambitious scheme achieves, but the ideal it means to live up to is a worthy one, and possesses elements of novelty and promise which are commendable. We understand that a medical advisory board will be established in London, to which applications from England for admission will require to be made.

It has been decided by the Council and committee of management of King's College that it is desirable to remove the hospital from its present position to a site in South London, and a special Court of Governors is about to be held for the purpose of obtaining the sanction of the members of the corporation to the council's recommendations. The decision of the council has not been arrived at without much consideration, nor has it been adopted unanimously. Several members who disapprove of the proposed removal have entered their protest, and a few have gone the length of emphasising their disagreement with their colleagues by sending in their resignation. This is unfortunate, but in every new move of this kind there must be certain irreconcileables whom it is impossible to convince that altered circumstances demand, in most cases, an altered policy. It is universally admitted that in the case of King's—and perhaps also one or two other large hospitals situated near the midst of London's greatest activity—the displacement of the population, the exigencies of business requirements, the transference of large works to districts

Digitized by Google

tions that might be mentioned, are enough to justify the removal of these institutions from situations where they have well served their time and generation to others in which the demand for them is great and in which they may safely count upon an extension of their usefulness and of their popularity.

West Australia.

(FROM OUR OWN CORRESPONDENT.)

Perth Hospital Appointments—Bubonic Plague—Compulsory Vaccination—Proposed University—The West Australian Branch B.M.A.—Sundry Items.

EVENTS of importance in the medical world of Western Australia have not been very frequent of late; still there are one or two points that may interest your readers in the eastern States. A good deal of dissatisfaction has been manifested against the board of management of the Perth Public Hospital, more especially in regard to recent appointments they have made on the honorary staff. Promising and hard-working juniors have been passed over, and the senior appointments filled by new medical men, some of whom, at any rate, have only been practising in the city a few months. A procedure such as this, by the board of management of any large hospital, must in the end militate against the harmonious and efficient working of the hospital staff; furthermore, they will probably find it hard to fill the less attractive and often harder worked honorary hospital appointments on the junior staff.

The occurrence every now and then of a sporadic case of bubonic plague serves the useful purpose of keeping the Central Board of Health on the *qui vive*, and emphasises the great difficulty that exists in thoroughly stamping out this disease. The last case occurred near a small town about ten miles from Perth. The plague officer (Dr. T. L. Anderson) is now making an official visit to Bombay, at the request of the Government, and it is hoped that the further knowledge that he may gain will be of service to the health authorities.

More strenuous efforts are now being made to carry out the compulsory vaccination of children, and a fair amount of success has attended the efforts of the vaccination officers. The possibility of an outbreak of smallpox in our midst is not so impossible as the public apathy evinced in the subject would seem to indicate, owing to the frequent arrival of steamers, often with alien crews, from Calcutta, Singapore, Colombo, and other smallpox ridden cities in the East.

It is the intention of the Government of this State to set aside at an early date a considerable area of Crown land as an endowment for the future University of this State. This far-sighted policy commends itself to the common sense of the more enlightened inhabitants of this city, and I would even go further and similarly endow the principal hospitals and other benevolent institutions which are necessary in all large cities.

The sixth annual dinner of the West Australian Branch of the British Medical Association will be held on Saturday, December 5th, when I hope to see a large attendance of members and their friends. The officers of the Branch for the ensuing year are:—Harvey E. Astles, M.D. (Edin.), president; Herbert Horrocks, M.D. (Lond.), vice-president; H. F. Harvey, M.R.C.S. (Eng.), J. E. Ramsay, M.B. (Lond.), F. Tratman, M.D. (Lond.), ordinary members of Council; G. H. S. Blackburne, M.B., B.S. (Melb.), hon treasurer; H. A. Leschen, M.B., Ch.M. (Edin.), hon. secretary. The recently read at the annual meeting, show an increasingly prosperous condition of the Branch.

There has been a considerable influx of medical practitioners into this State during the last 12 months, and they have shown more especially a tendency to settle in Perth itself. This city, notwithstanding its prosperous condition, may now be said to possess relatively as large a proportion of medical men per head of population as the other cities in Australasia.

The building of the new lunatic asylum is being rapidly pushed forward, and this sadly needied up-to-date institution will, I trust, be opened for the reception of patients within the next six or nine months. It is situated overlooking the ocean, about half way between Perth and Fremantle.

The health statistics of Perth, Fremantle, and the State generally have been very good during the past year, and they would compare favourably with those of rest of the Commonwealth. Enteric fever is now, and has been for a considerable period, almost absent from Perth and Fremantle, and those few cases that there have been have generally originated in the rural districts, and have been principally of a mild and benign type.

A curious epidemic of jaundice was prevalent a few months ago in Kalgoorlie and district; the exact cause and origin of the epidemic is at present unknown, but some light may, at some future date, be thrown upon the subject by one of my Goldfields colleagues.

Tasmania.

(FROM OUR OWN CORRESPONDENT.)

The Smallpox Epidemic in Launceston—The Medical Officer of Health in Hobart.

DR. ELKINGTON'S report on the smallpox outbreak, which has been presented to Parliament and published, is an excellent review of the whole history of the epidemic, and contains much valuable advice, which might well be taken to heart, not only by the Tasmanian, but by other State Governments. As most of the facts of the epidemic have already been placed before you, I shall content myself with only a summary of some of the points dealt with. As to the origin of the outbreak, it seems to have been connected with the visit to Launceston of an actor named Marion, who travelled by the "Gracchus" from Calcutta to Melbourne. This vessel, which arrived in Melbourne on May 2nd, and was granted pratique, was detained in New Zealand on May 18th with two cases of smallpox on board, and on May 20th two of her Victorian passengers developed smallpox. Marion, when examined subsequently in New Zealand, showed the remains of a rash, probably the remnant of a mild attack of smallpox gone through before reaching Tasmania. He had arrived in Launceston on May 4th, and was engaged at the Empire Theatre. The first three cases, a girl named Faulds who took ill on May 23rd, a boy named Cox who sickened on May 26th, and a man named Duggan who fell ill on May 29th, visited the Empire Theatre between May 9th and May 16th. From these three cases the subsequent spread of the infection can be traced, two secondary factors being added later, viz.: the workmen at the isolation hospital and the guards of the isolated houses. There were in all 66 confirmed cases of smallpox, and six additional cases suspected but not confirmed; 62 per cent. of the cases were severe, and the mortality was 28·8 per cent. The report deals at some length with the vaccination statistics, which show clearly the value of the protection afforded by vaccination and revaccination. With regard to the blame that has been popularly cast on the medical

Digitized by Google

staff of the hospital for failure to diagnose the disease, Dr. Elkington very properly defends these gentlemen, pointing out the difficulty which exists in the diagnosis of hæmorrhagic cases, but is equally outspoken in his condemnation of the existing system according to which a fever hospital is combined with a general hospital, and points out the need for having a separate infectious diseases hospital for Launceston.

The final recommendations of the report are much on the same lines as those indicated in my previous communications to the *Gazette*, namely, the organisation of a Department of Public Health on modern principles, with a responsible medical man at its head, a suitable port quarantine system, laboratory and other facilities for the bacteriological diagnosis of disease, isolation hospital accommodation for Hobart and Launceston, and complete separation of infectious diseases hospitals from general hospitals, efficient vaccination, legislation, etc.

These proposals would have had, I hoped, the support of the whole profession and Parliament of the State, but that, unfortunately, has not proved the case, for the new Public Health Bill has already been sadly mutilated, all the vaccination clauses having been ruthlessly excised.

What can be said of a Parliament so destitute of the ability to learn a lesson from the bitter experiences of the last few months? Fortunately the Government has rescued one clause of the bill from mutilation, viz., that relating to the appointment of a chief medical adviser; and it is to be congratulated, if upon nothing else, at any rate upon the appointment which it has made, viz., that of the author of the report referred to—Dr. Elkington. The new officer will not find the path of sanitary reform in Tasmania lacking in obstacles.

Dr. Gerard Smith, a homœopathic practitioner, has been appointed by the local Board of Health special officer of health for Hobart. Much dissatisfaction with the appointment exists amongst the profession, and the Central Board of Health has refused to confirm it. However, the local board declines to yield, and a deadlock threatens to ensue.

At a public meeting held in the Albert Hall on Monday, November 23rd, Drs. Barnard and Wilson, the Rev. Father O'Gahony, the Rev. F. Ternan, and the nurses of the Smallpox Hospital were presented by the citizens of Launceston with addresses and medallions in recognition of their services during the smallpox epidemic.

MECHANISM OF THE PAROXYSMAL NEUROSES.

(To the Editor of the Australasian Medical Gazette.)

Sir,—I have to thank you for your editorial comments upon my series of papers on the "Mechanism of the Paroxysmal Neuroses." It is very satisfactory to me that you should favour the vaso-motor mechanism of migraine and asthma.

Some of your comments, however, I read with discouragement, because they bring home to me the fact that in certain important respects I have failed to render myself fully intelligible. You infer that I seek "to establish the pathology of migraine, asthma, epilepsy, *gout*, *pyrexia*, *etc.*, upon a common basis of vaso-motor disturbance." (Italics mine.) Again, with regard to gout, you state that I do "not show how the phenomena of this disease can be explained on a vaso-motor hypothesis."

The task which I set myself was to show that vaso-motor action is essential—not incidental, as is commonly assumed—to the attacks of the *paroxysmal neuroses;* in other words, "that the phenomena peculiar to each of these neurosal paroxysms are determined, *for the most part*," by vaso-motor action, or by cardiac modification secondary thereto. I wished to avoid entering for the present upon the pathology of any of the affections concerned; hence the persistent use of the word "mechanism," a much less inclusive term than pathology.

As regards acute gout and pyrexia, pathological conditions which cannot be included under the term paroxysmal neuroses, I have made no attempt to discuss their pathology. I have merely pointed out that "arterial relaxation is the condition of the vessels characteristic of pyrexia"; that this vascular condition is incompatible with the development—at any rate the full development—of the paroxysmal neuroses, for which vaso-constriction is essential; and that acute gout, being a pyrexia, may be placed in the same category with other pyrexias. But the vascular modification (relaxation) which supervenes during an attack of acute gout must doubtless be regarded as a result, not, as in the case of the paroxysmal neuroses, as an essential factor of the process.

I quite agree that the hypothesis advanced is not an adequate explanation "for all cases of so-called idiopathic epilepsy." I would go even further than this, for I do not consider the hypothesis an adequate, that is, a full explanation for any case of idiopathic epilepsy; nor indeed does vaso-motor action explain all the phenomena of any of the other paroxysmal neuroses. But vaso-motor action, or vaso-motor action plus compensatory cardiac action, will fully explain many of the most conspicuous phenomena of some of the paroxysmal neuroses, while on the other hand it does not seem to conflict with any, except perhaps in a few exceptional cases.

For the explanation of many phenomena connected with the paroxysmal neuroses—for example, the marked tendency of these affections to periodicity, the direct relation frequently observed between the severity of the paroxysms and the length of the intervening interval, the psychical equivalents, not only of epilepsy, but of migraine and asthma, the salutary influence of the bromides, arsenic and other drugs upon epilepsy and some cases of migraine, asthma, neuralgia, etc.,—we shall probably have to wait until we have identified some at least of the fundamental factors of the perverted vaso-motor action: at any rate there is ample room for such explanations in the pathological domain which extends behind the mere mechanism of the paroxysmal neuroses. I would remark, however, that some attacks of petit mal—those which consist of momentary loss of consciousness, with or without slight convulsive phenomena—are reasonably explicable by "momentary inhibition of the heart due to a rise in the general blood pressure." As I have pointed out in my third paper, "Hughlings Jackson informed Moxon that on several occasions he had known 'the pulse to disappear during the paleness of the face in the onset of the attacks of petit mal'"; and "Moxon refers to another case in which frequent petit mal was associated invariably with heart stoppage."

In the last paragraph of my third paper I was careful to avoid claiming a vaso-motor mechanism for all cases of convulsions—perhaps it would have been better to have said all cases of "idiopathic" epilepsy. Here I would submit the following propositions:—1. "The phenomena indicate that there is a discharge of grey matter." (Gowers.) 2. Such discharge of grey matter *may* be incited by cerebral anæmia, as has been demonstrated experimentally by Kussmaul and Leonard Hill. 3. Such cerebral anæmia *may* be due to vagus inhibition of the heartbeat, compensatory of rapid rise of blood-pressure dependent on some widespread vaso-constriction.

Digitized by Google

nts are "manifestations or symptoms of a degenerating cerebral cortex." The frequent occurrence of epileptic fits in idiocy and the phenomena of post-hemiplegic epilepsy strongly support this view, and we could explain such cases by loss of that inhibitory power possessed by the normal cerebrum over the lower centres, amongst which must be placed the vaso-motor centre. Similarly the restraining influence of hypnotic suggestion upon epilepsy and the other paroxysmal neuroses, pointed out by Dr. Richard Arthur, might fairly be ascribed to some increase of the existing power of cerebral inhibition. But in the very numerous cases in which recurring epilepsy is eventually succeeded by a progressive dementia, surely it is reasonable to regard the presumed cortical degeneration as a result rather than as a cause of the fits.

With the view that acute gout and the paroxysmal neuroses depend upon faulty metabolism which leads respectively to deposition of urate of soda in the joints and to vaso-motor disturbance, I am in full agreement. Indeed I hope shortly to bring forward some evidence which will not only support this view, but also, I think, throw some little light upon the nature of the fundamental metabolic error.—I am, etc.,

F. E. HARE.

Hardgrave Road, South Brisbane.

P.S.—Since writing the above I have received an important communication from Dr. J. Fergusson, of Toronto, Canada. The following is an extract from his letter, dated 6th November:—"What I wish to write you about is a statement in your paper (on epilepsy) on page 391 as follows:—'Gowers, after referring to the fact that during an acute febrile disease patients are usually free from attacks, points out that an exception is scarlet fever, during which they sometimes continue with increased severity. I have no explanation to offer with regard to this exception.' On this point may I mention to you that during the last day or two of the invasion stage of scarlet fever, and the first two or three days of the eruptive stage, there is high arterial tension. I do not know of any other febrile disease with this characteristic. The cases of scarlet fever with a low arterial tension during the above days are usually of the malignant type, with deep sepsis and great depression. This explanation makes scarlet fever fit in with your theory. . . . I have long taught that the changes in circulation account for most cases of convulsions."

PRESERVATIVES IN FOOD.

(*To the Editor of the Australasian Medical Gazette.*)

SIR,—The report of the Select Committee of the Legislative Assembly on the use of boracic acid has brought to my mind a case that made a very great impression on me, and I think the following rough notes of the case might be of interest:—

A patient of mine suffering severely from cystitis, the result of prostatic enlargement, consulted a Sydney surgeon, who prescribed boracic acid in 30 grain doses three times daily..

The cystitis rapidly improved, but the patient, within a week, got into a very low condition, having markedly lost flesh, the most prominent symptoms being vomiting and diarrhœa, headache and extreme nervousness, with muscular tremors of the upper limbs. I stopped the boracic acid when he had taken it a week, and the symptoms cleared up at once, with the exception of the bladder symptoms, which got worse.

In a few days I started him on it again, and almost immediately the same symptoms reappeared and then cleared up on withholding the drug again.

By it, I tried it again in a few days, but with the same result, and the patient then refused to take any more.

I may add that I would not allow any patient of mine to take concentrated milk containing 35 grains of boracic acid to the pound, or would I use it in my own household.—I am, etc.,

W. R. CLAY.

Hornsby, N.S.W.

THE BATTLE OF THE CLUBS.

Gundagai.

ABOUT a month ago a local bootmaker called on Dr. Griffiths at Gundagai, and introduced Mr. Arthur Boot, organiser of the Grand United Order of Oddfellows, who stated that he was attempting to start a branch lodge in Gundagai, and wished to know on what terms Dr. Griffiths would accept the position of medical officer supposing it were offered to him. Dr. Griffiths stated the lodge rates current in the district, and said that if the membership were confined to the poorer class of the community he would be ready to accept the position, but that he would not take as lodge patients well-to-do storekeepers or landed proprietors. Mr. Boot denied that he intended canvassing any such, and assured the doctor that the G.U.O.O.F. was not like the M.U. I.O.O.F., and that in spite of any trouble between the latter and the medical profession there was no fear of disagreement between the G.U.O.O.F., which confined itself to poor people, and its medical officers.

About a fortnight later the doctor examined several candidates, four of whom were refused on account of ill-health and about five others passed, while the doctor refused to accept as a club patient one storekeeper in a good business. A private patient, the son of a large landholder, also called for examination, but said that he could afford to pay a doctor, and left on his own initiative. A bank clerk called and said that he did not want to join, but had been persuaded to do so, as the originators of the scheme wanted to start the lodge with a large number of members. He, too, withdrew *sua sponte*.

All the candidates called on the afternoon of the proposed opening night, and later, together with an officer from headquarters, held a meeting, after which the officer called on the doctor and said that he more or less agreed with the doctor's stand, but that it was necessary for the lodge to have some members in good financial positions to hold the offices of trustees, etc. The doctor still refused to accept them as patients at contract rates.

A few days later the "hon. sec. *pro tem.*" wrote and asked if the doctor still persisted. He replied that he did. The same night the lodge was opened and the position of medical officer taken by another local doctor. The editor of the local paper is, we understand, the secretary of the lodge, and in his paper appeared a two-column article in denunciation of the position of the obstinate doctor who refused to accept the offer of his lodge.

We have heard of no trouble since the installation.

Inverell.

We are informed that the dispute between the medical men in Inverell and the local lodge of Oddfellows has been happily settled. The lodge has taken on the medical men as their medical officers on the latter's terms. The wage limit of £200 per annum has been secured, the payments to the medical officers are to be per visit or consultation, and not per member per annum. This is in the highest degree satisfactory, and shows what can be done by harmonious action. We are glad

Digitized by Google

where the principle of payment per visit has replaced that of payment per member per annum; and we hope, in the interests of the lodge members first of all, and in those of the medical officers, the day is not far distant when the same system will be universally adopted.

Report of the Principal Medical Officer (Dr. T. H. Lovegrove) on the Medical Department of Western Australia, 1st January to 31st December, 1902.

(Abstract.)

Hospitals.—There are forty-four hospitals in Western Australia, all of which are practically supported from public funds; for though the public hospitals at Perth and Fremantle are administered by boards of management under a special Act of Parliament, and 14 assisted hospitals are under committees elected by the subscribers, of £17,330 6s 2d expended at the two public hospitals in Perth and in Fremantle, £15,343 1s 8d was drawn from the public purse through the medical department. The 14 assisted hospitals spent altogether the sum of £20,718 15s 10d; of this, £11,057 5s 9d was from the public purse under what is known as the £ for £ vote, together with grants amounting to £1345 2s 8d towards salaries of the medical officers in charge of them. The following are the centres at which hospitals are maintained, and form of control:—Perth and Fremantle, boards of management, under "The Hospitals Act 1894"; Albany, Bridgetown, Broome, Bunbury, Busselton, Carnarvon, Collie, Coolgardie, Cue, Derby, Esperance, Geraldton, Guildford, Kalgoorlie, Katanning, Kookynie, Lawlers, Marble Bar, Menzies, Northam, Newcastle, Onslow, Pinjarra, Roeburne, Southern Cross, Williams, Wyndham, and York, controlled and administered by the department; Broad Arrow, Bulong, Kanowna, Laverton, Leonora, Mt. Malcolm, Mt. Magnet, Mt. Morgans, Mulwarrie, Nannine, Norseman, Peak Hill, Phillips River, and Wiluna, controlled by committees under £ for £ subsidy. The moneys collected by the committees of these hospitals upon which the £ for £ subsidies are paid are substantially contributions of 1s per week by men on the various mines, the majority of whom are willing contributors. Moneys are also obtained from other sources at the various centres by those interested in the maintenance of these institutions. The medical officers attached to assisted hospitals are controlled and paid by the several committees, some of them receiving as much as £450 and £500 a year, together with a house and the right of private practice. In regard to the latter privilege, many of the doctors have complained bitterly that under the 1s a week contribution system, which is practically open to every person in the town, what is called private practice does not exist; and they assert that the Government, in subsidising the 1s a week contribution, for which the committees maintain (in many centres) that the contributor has a right to free medical and surgical attendance at home from the doctor, with the further right to free admission, with maintenance and treatment in hospital when too ill from the effects of accident or disease to be attended at their own houses, are practically subsidising a huge club from the public purse, and encouraging the sweating of the doctor under the committee. The number of patients treated during the year in Government hospitals was 3938; the death rate was 7·64 per cent. At Perth Hospital, during the same period, the death rate was 8·16, and at Fremantle Hospital 7·82 per hundred cases treated. might be, owing to the structural defects and arrangements of the wards. In the large goldfields hospitals a number of buildings are scattered over too big an area. This was necessary to diminish as far as possible the risk of fire, as the materials they are constructed of, viz., wood, iron and hessian, are too inflammable to render it safe to have the buildings conveniently and compactly arranged; thus necessitating the employment of a larger staff than would be otherwise required.

Quarantine Stations.—There are three quarantine stations—one at Albany, one at Carnac Island, and one at Woodman's Point. The accommodation at the latter has been largely increased during the past few years in order that sufficient accommodation might be available in the event of an outbreak or importation of infectious disease. It is distant from Fremantle some seven miles, with which part it is now connected by rail. The resolutions passed at the Quarantine Convention held in Melbourne in 1896, which were subsequently agreed to at a conference of Premiers in the same year, are practically in force in this State.

Vaccination.—For a number of years past the Vaccination Act was practically ignored. In September, 1900, the Act was put into active operation, with the result that since then to date 10,000 children have been vaccinated. There are still in the State several thousands of unvaccinated children under the age of seven years.

Receipts and Expenditure.—The revenue received by the department during the year was £5617 10s 4d, and the expenditure £96,007 15s 4d. The cost of administering the department at the head office amounted to £3325 8s 9d, or about 3½ per cent. of the total expenditure for the year, viz., £96,007 15s 4d.

Suggested Reforms.—The time appears to have arrived when the hospitals of this State should be placed upon a different basis. The residents at centres on the goldfields where hospitals are managed by committees have shown their appreciation of the action of the Government in providing institutions where the sick can be treated by raising annually about £10,000, which the Government subsidise by £ for £. If the money thus subscribed by the people and subsidised by the Government was only expended in the maintenance and treatment of *bona fide* indigents the principle would be excellent. For these subscriptions, however, the subscribers are entitled to certain privileges, viz., outdoor treatment by the medical officer, and, in the event of serious illness, indoor treatment free. The Government, by subsidising moneys collected and expended as at present, is, therefore, practically paying half of the cost of the medical attendance of a large section of the community who are in receipt of high wages. To remedy this the following alternative suggestions are offered for consideration:—(1) That hospital areas or districts be proclaimed throughout the State where sufficient close settlement renders it practicable, in each of which the hospital or hospitals might be supported by a rate supplemented by the fees of paying patients who enter them; or (2) that the people at centres where hospitals now exist be invited to form committees and provide a hospital fund from which to pay at the rate of £1 1s per week on the coast and £1 11s 6d per week on the Goldfields towards the maintenance and treatment of *bona fide* indigent patients admitted by their order to the various hospitals, and that fees for paying patients in coastal hospitals, *i.e.*, those within the old settled districts, be raised from £1 1s to £2 2s per week; the scale on the Goldfields for these to remain at £3 3s per week, as at present. (3) That the Government take over all hospitals, including Perth and Fremantle. Close or reduce to casualty wards those of Broad Arrow,

Digitized by Google

hospitals within 100 miles of the coast, and £3 3s per week beyond that distance. Finally, I would recommend that any private practitioner of repute living in any town where there was a Government hospital should enjoy the privilege of sending any case which he considered would be benefited by the better nursing at the hospital into the local institution, and himself attending the case therein. If the case were an indigent one, free maintenance would, of course, be accorded; if, on the other hand, the patient were a private one, or a member of a Friendly society, the doctor in the one instance, and the society in the other, should guarantee the hospital fees. Further, that, as far as practicable, stated days should be set aside for important operations, and that, if the patient so desire, he should have the benefit of consultation of the medical men of the town before the operation was decided on.

It is a question, perhaps, as regards the hospitals at Perth, Fremantle, and Guildford, whether it would not be better to have a much larger central hospital at Perth, and keep the hospitals at Fremantle and Guildford as small as possible. In this way the opportunity of the profession generally of seeing a larger number of serious cases in a central institution would be beneficial alike to the doctor and the patients under their care.

OBITUARY.

W. Butler Walsh, B.A., M.D. (Dub.), 1881; F.R.C.S. (Irel.), 1881, Kew, Victoria.

We regret to record the death of Dr. W. Butler Walsh, which took place suddenly at Kew, Victoria, on November 16th. He was born on October 8th, 1854, at Pau, France, and was a son of the late Rev. Edward Walsh, and was educated at Tipperary Grammar School and Trinity College, Dublin, where he graduated as F.R.C.S., M.D. (Dub.), in 1881. Dr. Walsh arrived in Victoria in 1881, and settled down in practice at Kew. Owing to some heart trouble he retired from general practice, and since June of this year he had been leading an easy life, simply doing some consulting practice in Collins-street. He was for three years examiner in anatomy at the Melbourne University, and was this year appointed honorary physician to the St. Vincent's Hospital, and was recently elected vice-president of the Medical Society of Victoria.

PRACTICES FOR SALE.

N.S.W.—Cash take, £1300; appointments, £400. Price, £250.

N.S.W.—Cash take, £500. Price, £100; terms if required.

N.S.W.—Cash take, £700. Price, £300. Good district.

N.S.W.—Cash take, £600. Price, £300. Appointments, £200; suit R.C.

QUEENSLAND.—Cash take, £1000; appointments, £375. Price, £350. Coast.

N.Z.—Cash take, £900; appointments, £186. Price, £250. Unopposed.

N.Z.—Cash take 2 years, £2500 p.a.; established 27 years; average income, £1800. Price, £800; £500 down.

Thirteen other practices are available in N.Z., including one city of Wellington; one is available city of Hobart.

Openings available N.S.W.; guaranteed. £200 to £300. Several unopposed.

MR. F. W. LOXTON,
16 O'Connell-street, Sydney.—[ADVT.]

New South Wales.

Health of the Metropolis.—Dr. Armstrong reports: The number of deaths registered in the metropolis during November was 510. This figure is slightly below the average number of deaths during the corresponding month in the five preceding years, and is equal to an annual death-rate of 12·12 per 1000 of the estimated mean population. Among the causes of death that which bulks most largely for the month is diarrhœa, which, under the names of diarrhœa, enteritis, gastro-enteritis, etc., was certified as the cause of 90 deaths, 65 of which were those of infants. The average number of deaths from diarrhœa during the previous five Novembers was 105. Zymotic diseases, except diarrhœa, accounted for 22 deaths, of which two were due to measles, one to scarlet fever, two to influenza, six to whooping cough, two to diphtheria, and nine to typhoid fever. Deaths from phthisis numbered 30, a figure considerably lower than the monthly average number. Respiratory diseases were more fatal during the month than is usual in November. They caused 64 deaths, of which 38 were due to pneumonia and 23 to bronchitis. Of the total number (64), 32 deaths were infantile. Most of the other scheduled causes of death contributed their usual quota to the death roll. Cancer caused 27 deaths, Bright's disease 23, heart disease 38. Infantile mortality was high for the month. One hundred and seventy-one deaths of children under one year of age were recorded. In the face of the rather low death-rate from diarrhœa, the high infantile mortality is uncommon. It was partly due to deaths from respiratory disorders, partly also to deaths certified as being caused by marasmus, a name frequently applied to diseased conditions due to defective feeding. The notified attacks of notifiable infectious diseases during the month were: Scarlet fever, 123; diphtheria, 22; typhoid fever, 79. The number of attacks of typhoid fever notified was unusually high for November, the quinquennial average for this month being only 50 cases.

Preservatives in Food.—Progress report of the Select Committee of the New South Wales Legislature: The Select Committee of the Legislative Assembly appointed to inquire into and report upon the use of preservatives and colouring matters in the preservation and colouring of food laid a progress report on the table of the Legislative Assembly on November 25th. The report states that "owing to the vast scientific ground covered by this subject, your committee decided to primarily investigate the effects of boracic acid and salicylic acid in connection with these industries, but the examination of witnesses and evidence in regard to boracic acid alone has been so full and exhaustive as to occupy the whole time of the committee to the exclusion of more than a superficial examination of the other preservatives, and your committee does not feel justified consequently in reporting on other than boracic acid. Your committee has recognised that the questions of the innocuousness or otherwise of preservatives was essentially one to be determined by medical expert witnesses. They have, however, been confronted with great divergence of opinion on the part of the medical witnesses. All the members and officers of the Board of Health examined were unanimous in declaring that they believe the presence of preservatives in food to be injurious. On the other hand, a number of private practitioners were equally emphatic in their assertions as to the harmlessness of such additions in the above necessary quantities of food. When your committee came to consider the evidence, they found that all the members

Digitized by Google

with regard to the injurious effects of boracic acid, not on personal experience and observation, but on evidences gathered chiefly from medical periodicals, and on the assumption that any foreign substance if taken regularly must cause injury to the body and bring about degeneration of the organs. On the contrary, the medical witnesses who favoured the use of boracic acid declared that they had extensively used it externally and internally, both in children and adults. They further declared that even when they had administered it in large doses over considerable periods of time there had never been any ill-effects whatever. They also stated that, though in their own personal experience they had never observed any injurious effects from its use, in concentrated solutions and large quantities they were prepared to admit that under these circumstances signs of irritation might arise; but that in the extreme dilution met with in milk it was impossible to believe that such effects could ever occur. In contrast to this, they held that the high infantile mortality from diarrhœa which results in many cases from the consumption of partially decomposed milk could be lessened or prevented by the addition of boracic acid." The conclusions of the committee are as follows:—1. That, as regards butter, there can be no question as to the necessity or harmlessness for the use of up to 35 grains of boracic acid to the pound, since this amount is recommended by the English Departmental Committee, and is the amount fixed as permissible by the regulations of the Boards of Public Health both in New South Wales and Queensland. 2. That, as regards milk, if there is sufficient care in handling and rapidity in distribution, chemical preservation is unnecessary. 3. That, as regards condensed milk, of which there are two varieties, sweetened and unsweetened, the use of sugar in the former and sterilisation in the latter, combined with hermetically sealing in air-tight tins, the use of a chemical preservative is unnecessary. 4. That, as regards concentrated milk, which your committee recognise as a trade name applied to a further description of condensed milk, the use of 35 grains of boracic acid to the pound is necessary. 5. That as regards cream for consumption as such for the proper maintenance, expansion, and development of the trade, and to bring this nutritious article of food within the reach of every householder at a reasonable price, the use of 18 grains of boracic acid to the pound is necessary. 6. That the use of 35 grains of boracic acid to the pound of butter, and 35 grains of boracic acid to the pound of concentrated milk, and 18 grains of boracic acid to the pound of table cream, will cause no injury to health, and should be permitted. 7. That, having in view the right of people to know what any food stuff consists of, vendors of these articles containing preservatives should include on the label on the package, tin, or containing vessel, and in conformity with the rest of the label, a statement setting forth the nature and quantity of the preservative contained therein; and in cases where a label is not ordinarily fixed, then a special label to that effect should be affixed. And your committee recommend that the regulations made under the Public Health Act should be amended and brought into conformity with the above conclusions.

Glebe Island Abattoirs.—The Select Committee of the Legislative Assembly, appointed on July 10th "to inquire into and report upon all matters appertaining to the inspection of meat at Glebe Island, and the general conduct and management of the affairs of the abattoir," has agreed to the following conclusions:—"1. That the management of the abattoir should be placed under a special board of control, which should be subject to the supervision of the Board of

are very defective, both in design and structure, and should be replaced by a thoroughly up-to-date and complete abattoir. 3. That the present system of sending part of the offal to sea is antiquated and expensive, and against the interests of the health of the residents of the city of Sydney. 4. That all condemned carcases should be seized and disposed of by the controlling authority, so as to prevent the possibility of any portion of them finding their way into human consumption, and that all offal should be treated at the abattoir and made into a marketable commodity. 5. That no slaughtering of stock should be allowed within a radius of 14 miles of the city of Sydney, except at the public abattoir. 6. That the present system of inspection of meat is defective. 7. That the inspection of brands is done in a very loose manner, and is therefore no protection to stock-owners in assisting them to detect stock-stealing. 8. That greater care should be taken to prevent intoxicating liquor from being brought to and consumed at the abattoir; and that it should be made an offence, punishable by dismissal, for an inspector to accept drink or favour of any kind from any of the master butchers or their employees. 9. That the general management of the abattoir is defective. The committee would therefore recommend to the Government that a new, complete and modern abattoir be erected; that it be placed under the control of a special board and managed as a business concern; that no slaughtering be allowed within 14 miles radius of the city of Sydney except at such abattoir; that the whole of the bye-products be treated by the Government; and that the present system of inspection and management be improved so as to obviate the defects pointed out in this report, and ensure to the public of the city and suburbs that the meat which they consume is dealt with under the very best possible conditions."

Victoria.

Tuberculosis Precautions. — At the last monthly meeting of the Board of Public Health, the chairman, Dr. Gresswell, said the board's regulations with regard to tuberculosis patients must be strictly enforced. People who knew they were suffering from tuberculosis must be prevented from spitting in the streets and places of public resort.

Queensland.

Bubonic Plague. — The Commissioner of Police has received a telegram stating that Elsie Hansen, 15 years of age, who is at the Cairns Hospital, had developed signs of plague. Till recently she was living at the same hotel as the last patient. The hotel has been quarantined, and the Government Medical Officer is attending to the matter.

Scarlet Fever at Mount Morgan.—A serious outbreak of scarlet fever has occurred at Mount Morgan. Dr. Ham has appointed Dr. Richards, health officer, to act as his deputy, and an inspector from the Health Department has proceeded to Mount Morgan. The Health Commissioner has also instructed the hospital authorities at Mount Morgan to isolate and treat cases in tents, to be erected on the hospital grounds. At the instance of the Health Commissioner, it has been decided to at once close the State schools, which, under ordinary circumstances, would close on 12th instant for the summer vacation.

Adulterated Food.—A conference has been held between the Health Commissioner, the Government

Digitized by Google

London firm, regarding action taken by the Health Department in connection with certain fictitious essences. The Health Commissioner is endeavouring to get the Southern health authorities to act in conjunction with the Queensland Department regarding adulterated food and drugs, etc.

Launceston Smallpox Epidemic.

THE following is a summary of Dr Elkington's report to the Tasmanian Parliament on the recent outbreak of smallpox in Launceston Dr Elkington states that he arrived in Launceston on August 5th, 1903, to advise upon measures best calculated to put an end to the outbreak of smallpox which had existed in and about Launceston since the end of May. Some 60 known cases of smallpox had occurred in and about Launceston, in addition to several others to which strong suspicion attached. Eight of these had died, 41 cases had been removed to the isolation hospital at varying periods after their discovery, and three were being attended at their own homes. Two of these were in one house, and the members of their families were isolated with them in an unvaccinated condition. At that time 90 active contacts had been sent to "Glen Dhu" contact station, and some 60 others were isolated at their own homes, many of these having refused vaccination, though living in actively infected houses. He refers to the inadequacy of the disinfecting staff, the uncertainty as to where the infection might have been carried, the restrictions imposed by the other States, the deficiencies of the lymph supply, and the absence of responsibility for carrying out precautionary measures advised by the local and central authorities when the disease broke out. The conditions, therefore, demanded prompt action, and on the assurance that full powers were granted him to deal with the outbreak in all its aspects, he assumed control.

The general outlines of the outbreak up to the time of his taking control, as ascertained from data since available, led him to believe that during the last few days of May and the first three weeks in June several persons living in the vicinity of the north end of Margaret-street had been found to be suffering from eruptive disease, accompanied by febrile symptoms. No suspicion of smallpox existed at the time, and no cases were known to be present in Australia. Chickenpox, measles, and scarlet fever were somewhat prevalent, and tended, by the atypical forms which these exanthemata occasionally assume, to further obscure the diagnosis. Later on (about June 20) cases were reported from New Zealand and Victoria in connection with the s.s. "Gracchus"; and some discussion appeared to have arisen as to the possibility of these Launceston cases being variolus in nature. None of these patients died, and the reports showed that they were able in several cases to be up and about shortly, a fact which further tended to allay any suspicion that they had suffered from a severe and fatal disease as smallpox was generally assumed to be. Subsequent developments, however showed that this mild type was not constant. The first definite information received by the local Board of Health was a verbal report by Dr. L. S. Holmes, the Medical Officer of Health, on June 22nd, who stated that there was a case of smallpox in the hospital. That was confirmed, and some six others were notified during the day. By the next day 11 cases were known to exist, and others rapidly developed. tion at the isolation hospital, the regulation for ensuring the vaccination of all persons employed on or in a smallpox hospital was overlooked, and five cases eventuated, directly and indirectly, from the men employed.

The actual origin of the outbreak had not been cleared up, despite close inquiry, but sufficient evidence was available to place its connection with the s.s. "Gracchus" beyond doubt. The first genuine case seemed to have been that of a child, of 210 Brisbane-street, who fell ill on or about May 11th. On May 9th she was stated to have attended the Empire Theatre. The type was mild, and the child was convalescent by June 20th. The second case in order of development was a boy, of 30 Margaret-street, who fell ill on May 26th. He also had attended the Empire Theatre 12 or 14 days before. The third case was a man of North-street, who became ill about May 29th, and was admitted to the General Hospital on June 3rd, with what proved to be hæmorrhagic smallpox. He was stated to have attended the Empire Theatre on May 16th. From these three cases the subsequent course of the outbreak could be readily traced. At the Empire Theatre there had been playing a certain comedian, who had arrived in Melbourne by the s.s. "Gracchus" from Calcutta on May 2nd, and had come on to Launceston on May 4th. It was somewhat surprising that the infection did not spread much further than it did before effective measures were taken against it. To the termination of the outbreak 66 cases were confirmed by reports from the medical men, and of these 19 died. Some ten additional were closely investigated. Of the latter, six had been included for various reasons in this report as "suspected cases," not thoroughly confirmed, the remaining four being definitely negatived by the medical opinions obtained. The type of the disease was, on the whole, somewhat severe, and the case mortality was about the modern average, or somewhat below it, being 28·8 per cent. for all cases confirmed. The mortality in the 1887 outbreak in Launceston was 33 per cent.

The arrangements for the isolation of smallpox in Launceston at the time of the discovery of the presence of the disease in Launceston were very crude. The work of the resident surgeon and nurses was deserving of the highest praise. In all, 51 persons were admitted to the isolation hospital, suffering or convalescent, from smallpox, and of these 14 died.

The report emphasises the importance of vaccination and re-vacination, disinfection, and the isolation of contacts, and the measures which should be taken against future outbreaks of dangerous infectious diseases.

A FEW ITEMS TAKEN FROM BRUCK'S REVISED PRICE LIST FOR NOVEMBER, 1903:—Potain's Aspirators, with 2 trocars and canulas, stop cock, 2 plungers, and 3 needles, in aseptic metal case, with graduated bottle, £2. Laryngoscopes, with large head mirror (4 in. diameter), with head band or spectacle frame, throat mirrors, etc., in case, from £1 upwards. Brunton's Auroscopes, with reflector and 3 ear specula, superior, silver plated, in case, 15s. Sims' 3-Bladed Uterine Dilators, screw action, 25s. Sims' Double-ended Duck-bill Vaginal Speculum, plated, 5s 6d. Binaural Stethoscopes, Snoften's, plated, 5s 6d; with folding spring, 6s 6d. Tonsil Guillotines, Matthieu's, 17s 6d; Mackenzie's, with reversible handles, 24s. Folding Chloroform Masks, Esmarch's, or Schimmelbusch's, 3s 6d. Clover's Ether Inhalers, complete, in case, 45s.—L. BRUCK, Direct Importer, Sydney.—[*Advt.*]

Digitized by Google

HOSPITAL INTELLIGENCE.

The Austin Hospital, Melbourne.—At a meeting of the Austin Hospital committee the proposal to add a consumptive wing to the present buildings was considered. A report of the Heidelberg council deputation to the Minister of Works was laid on the table, and a petition from a number of subscribers asking that the wing be not erected was also received. It was pointed out that the objections of the council were not based on facts. The council claimed that the hospital has not enough ground for a sanatorium, with the result that patients would have to take their recreation in the streets. The secretary showed that the hospital has 17½ acres, so that nothing need be feared on this score. The architect was instructed to prepare working plans as quickly as possible, as there are at present over 60 sufferers from advanced consumption awaiting admission to the hospital.

Perth Hospital, W.A.—From the seventh annual report of the board of management of the Perth Public Hospital for the year ended 30th June, 1903, we learn that during the year 728 casualties and accidents, 1810 in-patients and 3417 out-patients have been treated, making a total of 5955. The deaths numbered 164, being 10·8 per centum of the in-patients. Twenty-six of these deaths occurred within 24 hours of admission. The typhoid cases for the year were 319, of which there were 18 deaths. The cases of diphtheria were two with one death. Cases of consumption were 68, of which 38 died. The out-patients' re-attendances numbered 16,566. 10,450 bottles of medicine were supplied to the Government Charities Department, police, aborigines, etc., the cost of which, including the out-patient department, was about £1000; of that, £217 was recovered by out-patient fees. The operations for the year numbered 318. The expenditure for the year amounted to £11,976 1s 9d, with £123 7s 8d carried forward to 1903-4. Charging this expenditure to in-patients, without making any allowance for out-patients, gives the average cost of £1 16s 11d per head per week, as against £1 18s 9d for 1901-2. This result compares very favourably with the cost per head of the principal hospitals in the Eastern States, when allowance is made for increase in wages and cost of living in this State. The receipts for the year were as follows:—Government grant, £10,600; fees from in-patients and out-patients, £1155 6s 3d; contributions, £246 10s 3d; sundry receipts, £49 13s 7d—total, £12,041 10s 1d. *Additional Accommodation.*—The daily average number of patients is steadily increasing, viz.: 124·5 compared with 113·18 for 1901-2. This is to be expected on account of the increased population. A new wing is urgently needed; in many instances patients have to be discharged sooner than desirable to provide for more serious cases. Patients are admitted from all parts of the State, 19 per cent. of the total in-patients this year coming from outside the Perth district. During the year Dr. James Thompson was appointed resident medical officer, *vice* Dr. L. S. Allan.

Royal Prince Alfred Hospital, Sydney.—At the monthly meeting of the board of directors of the Royal Prince Alfred Hospital held last month, the sub-committee appointed to make recommendations as to the appointment of a matron reported having received ten applications for the position. The committee, after careful consideration, resolved to recommend that no present appointment be made, and that further applications be invited in Great Britain, Canada and America. It was suggested that applications be lodged with the Agent-General in London, and that a committee of ladies and gentlemen connected with hospital work, including the chairman (Professor Anderson Stuart) and the matron (Miss McGahey), who will be in London in February next, be appointed to make recommendations as to a suitable person for the position. The committee's report was adopted.

Melbourne Hospital.—At a meeting of the committee of management of the Melbourne Hospital held on December 1st, an offer to help to reduce the debt of £7366 on the institution was made. It was proposed that the gala committee of the U.A.O.D. should hold, in conjunction with the Druids' annual Easter sports, a grand bazaar and art union in the Exhibition Building similar to the one which in 1901 raised more than £10,000 for the same object. It was decided to hold a special meeting the following week to deal with the matter.

Brisbane General Hospital.—At the meeting of the Brisbane General Hospital, held last month, a letter was read from Dr. C. F. Marks, stating he would be pleased to accept provisionally the position of X-ray physician if the committee arranged during the currency of the agreement to relieve him of the work of honorary visiting surgeon. The committee accepted Dr. Marks' offer. The chairman, on behalf of the committee, welcomed Dr. Mayne on his return from a holiday spent abroad. During his absence his work had been done by Dr. McLean, who had shown keen interest in the welfare of the institution. Dr. Mayne thanked the committee for their welcome, and also for the extension of his leave of absence. The finance committee's report showed that the overdraft at last meeting was £2806 13s 3d; receipts since that date, £285 12s; expenditure, £1327 13s 7d; present overdraft, £3848 15s. The medical report for the three weeks ended November 14th was as follows:—In-patients: Remaining under treatment at date of last report, 232; since admitted, 211; discharged, cured or convalescent, 74; relieved or improved, 125; in *statu quo*, 15; to the reception house, 2; died, 16; remaining under treatment, 211. Out-patients' attendances: At the hospital, 1567; at South Brisbane branch dispensary, 271. Convalescent Home: Remaining under treatment at date of last report, 11; since admitted, 29; discharged, 34; remaining under treatment, 6.

The Thomas Walker Convalescent Hospital, N.S.W.—The tenth annual report of the committee of management states that this hospital has now completed the tenth year of its existence. During this period 8332 patients have been residents in the hospital; of these 6444 were discharged cured, 1653 were discharged relieved, and 69 are now in the hospital. Of the total number of patients, 158 left unrelieved, and there were 8 deaths—a small percentage for 10 years. During the first quinquennium, 1893-1898, there were admitted 3833 patients, and in the second, from 1898 to 1903, 4499. Dr. Spiers Kirkland, one of the visiting medical officers, resigned, on his removal to Sydney; his place was filled by the appointment of Dr. E. Sydney Littlejohn, of Croydon. During the same time the only change in the matronship was that Miss Emily Howard, the senior sister, early in 1902 succeeded Miss Frances G. Spencer, who resigned her appointment owing to the state of her health. During the past 12 months a change has taken place in the honorary examining physicians through the resignation of Dr. E. H. Binney, whose services were much appreciated. The vacancy was filled by the appointment of Dr. W. H. Read, of Sydney. The visiting medical officers' report states that the number of patients treated during the year was 977. Of these, 380 were discharged cured, 70 relieved, 7 unrelieved, and 69 remained in the hospital at the end of the year. One death occurred, the patient being a girl of 16, suffering

Digitized by Google

10 days after admission, and were at once removed—one to the Sydney and the other to the Royal Prince Alfred Hospital. One patient, a child, developed diphtheria, also a few days after admission, and was removed to the diphtheria hospital. There is no doubt that all of these patients had contracted the infection before admission. Two cases convalescing from typhoid had relapses while in the hospital, and were returned to the hospitals from which they came. The demand for admission to the hospital is always very greatly in excess of the accommodation, and for this reason the visiting medical officers have been unable to grant extensions in many cases which would have benefited very greatly by a more prolonged stay.

The Carrington Convalescent Hospital, Camden, N.S.W.—On the occasion of the recent visit of his Excellency Sir Harry Rawson and suite to the Carrington Convalescent Hospital at Camden, Dr. Purser gave a brief history of the hospital. In January, 1888, Mr. W. H. Paling presented the colony, through Lord Carrington, with Grasmere Estate, of 450 acres, with stock, and a cheque for £10,000. In accordance with the wish of the donor, this munificent gift was devoted to a foundling hospital and a home for convalescents, irrespective of creed or colour. The hospital, built and furnished, cost £20,000, the sum before mentioned being supplemented by public donations amounting to £6000, and the balance was voted by the Government. This was further supplemented by the Masonic body, by whom the Cottage Hospital, containing seven beds, was erected at a cost of £1500. The hospital, containing 100 beds, was opened by Lady Carrington in August, 1890. Since then 13,330 patients had received treatment, over 11,000 had been restored to health, and of the remaining over 200 had benefited. The annual cost of maintaining the hospital exceeded £3000, of which £1000 was received from public subscriptions and donations subsidised by the Government on the £ for £ system, and the remainder was derived from the maintenance of Government patients. The cost of each occupied bed last year was £36 16s 9d.

Granville Cottage Hospital, N.S.W.—At a meeting of the Granville Electorate Cottage Hospital committee, held at Rookwood, considerable interest was shown in the project of having a cottage hospital to serve the interests of the Granville electorate. Correspondence was read from several friendly societies, intimating willingness to take part in any effort set on foot. The collecting lists were handed in, and it was announced that the receipts for the month were £23 13s 9d, making a total of £115 15s 6d in hand.

UNIVERSITY INTELLIGENCE.

University of Melbourne.—Pass Lists: *First Year Medicine*—G. B. Bailey, C. L. Clarke, Elizabeth E. Clucas, B. W. Cohen, V. F. Crowe, R. M. Downes, R. H. Ebsworth, H. N. Featonby, O. H. Feilchenfeld, F. A. Ferris, R. N. S. Good, H. J. Gray, H. A. H. Grounds, M. J. Holmes, G. Lamble, J. J. McMahon, N. D. McNeil, C. R. Merrillees, A. Y. Nankivell, W. H. Nelson, C. L. Park, S. H. Phillips, F. W. A. Ponsford, Christina H. Reid, C. P. Rowan, F. V. G. Scholes, C. G. Shaw, L. O. Sleeman, A. E. South, C. V. Stephens, A. J. Trinca, W. E. Wilson, T. A. Wright. *Second Year Medicine*—H. Blaubaum, D. Buchanan, R. S. Callander, R. A. Campbell, Sarah M. Campbell, J. Catarnich, S. H. Cook, Muriel K. Davies, G. W. Deravin, H. B. Devine, J. W. Dunhill, J. J. L. Gill, Ethel Good, T. S. Hutchings, Maggie Jamieson, O. Joynt, A. F. McWhae, E. P. Oldham, J. H. Rutter, J. A. H. Sherwin, M. D. Silberberg, Viva St. G. Sproule, H. W. Sweetnam, J. Ward, E. R. White, N. L. G. Wilson. *Third Year Medicine*—J. G. Avery, A. W. Bowman, W. G. Brown, J. I. McI. Chirnside, Mabel G. S. Crutchfield, A. G. Dane, H. R. Duncan, Mary E. Edelsten, N. J. Gerrard, C. Creer, A. E. Harker, Mary A. Henderson, Ellen E. Henry, F. E. Langley, C. V. Mackay, J. J. Moloney, G. C. McK. Mathison, J. A. Opie, G. A. Paton, S. V. Sewell, C. Shields, H. G. Wadelton, R. N. Wawn, Laura Weir, R. R. Wettenhall, Isabella Wilkinson, H. C. Wilson. *Fourth Year Medicine*—A. Blaubaum, A. Cook, G. R. Darby, Mary C. De Garis, R. L. Forsyth, H. C. Fulford, W. de W. Henty, L. S. Latham, J. H. Leon, H. G. Loughran, A. Macdonald, J. T. Matthews, D. Mendelssohn, S. W. Patterson, B. Quick, J. W. Shields, R. E. Short, W. E. Tulloh, H. H. Turnbull. *Fifth Year Medicine*—F. C. F. Andrew, W. F. S. Bottomley, P. G. Brett, A. J. Cahill, A. B. Campbell, F. L. Davies, C. T. C. de Crespigny, T. P. Dunhull, W. D. Ferguson, A. H. Gibson, F. W. Green, W. A. T. Lind, M. E. Lynch, A. N. McArthur, A. E. Morris, J. N. Morris, F. A. Rodway, T. G. Ross, W. E. Summons, C. F. Tucker.

The report of the proceedings of the Melbourne University for the twelve months which ended on July 31st was presented to Parliament recently. The balance sheet shows that the year 1902 started with a debit balance of £11,772 and closed with a debit balance of £11,326. The institution was thus £444 to the good for the year on the general account. The expenses for the year amounted to £29,279, and the general receipts to £29,723, of which £14,625 was in the shape of Government endowment and special grant. The receipts in connection with the University Conservatorium, a separate account, were £2393, and the expenditure £2277.

MEDICAL MATTERS IN PARLIAMENT.

The Housing of the Consumptive Poor.—In the New South Wales Legislative Council, in reply to Dr. Nash, the Vice-President of the Legislative Council said that he had been informed by the Chief Medical Officer that, so far as the Department of Health was concerned, certain sites to provide hospital accommodation for the consumptive poor had been inspected, but had been found to be unsuitable. The matter, however, was still receiving attention.

Boric Acid in Government Butter.—In answer to a question by Dr. Ross, the Minister for Mines and Agriculture stated in the New South Wales Legislative Assembly that about four tons of butter were manufactured annually at the Hawkesbury Agricultural College. The only ingredient used for the preservation of the butter was boric acid, in quantities varying from 0·25 to 0·5 per cent. Only small quantities of butter were made at the experimental farms, and no preservatives were used, as the butter was not required for commercial purposes.

The Loan Estimates.—In the loan estimates presented to the New South Wales Legislative Assembly, hospitals get £15,000, including £5000 towards the purchase of a site for the Children's Hospital, and cottage homes for State children absorb £5000. There is £39,000 for sewerage construction, £26,000 for country and £50,000 for Sydney water supply. A sum of £85,000 is allotted for extensions and improvements to the water and sewerage services.

Digitized by Google

Suppression of Juvenile Smoking.—According to the Melbourne *Age* a very stringent Juvenile Smoking Suppression Bill was passed by the New Zealand Legislative Council on November 20th. The old penalty not exceeding £20 against persons supplying tobacco to youths under 16 is retained, but the prohibition of smoking by youths is made absolutely general, and is not, as formerly, merely prohibition against smoking in a public place. The excuse of a written permission from a parent or guardian is no longer available. The sole escape is a certificate from a doctor that the smoking is beneficial to the youth's health. When the bill was read in committee an attempt was made to make the measure come into operation on April 1st next instead of January 1st, but this proposal was rejected by 15 to 8.

MEDICAL NOTES.

Odontological Society.—The second annual dinner of the Odontological Society of New South Wales (terminating the proceedings during the fifth year of its existence) was held last month. There was a large attendance. Among those present were Sir James Graham, Hon. W. J. Trickett, M.L.C., Drs. Fiaschi and Brady. In response to the toast of the society, proposed by Sir James Graham, the President said that the past year had been one of the most successful in the society's annals. Their meetings and discussions had done much towards the advancement of members in a knowledge of the many ramifications of the great science of dentistry, and were important factors in promoting and furthering the spirit of good fellowship among members of the profession.

Messrs. Angus & Robertson, of Sydney and Melbourne, wish to call attention to their list of medical and surgical books, which appears monthly on page 2 of our advertising columns. They have just received a large assortment of Howard Chandler Christy's "Cartoons in Colours" and "Heads in Pastel," and they announce that their stock of books suitable for Christmas presents is very large and varied.

Aseptic Vaccine (Glycerinated).—We have received from Messrs. Parke, Davis & Co. samples of their aseptic vaccine in tubes and in points, of which they have just received a large supply. This last shipment has been stored in a cool chamber all the way across the Pacific, and is expected to remain potent for some time. Each parcel is subjected to a rigid physiological and bacteriological test before leaving the laboratory. A representation of the vesicle caused by the lymph can be seen in the firm's advertisement on page 48.

At the last meeting of the board of management of the Adelaide Children's Hospital the following resolution was unanimously adopted on the motion of the chairman (Right Hon. Sir Samuel Way):—"The board of management records its high appreciation of the upright character of the late Mr. Maurice Salom, the great public services he rendered in many ways during his long and honourable career in South Australia, and especially the valuable assistance which the Children's Hospital received from his counsel and sympathy, continued through many years. The members of the board gratefully recognise the benefits of his co-operation with them in their work, deplore the loss that has been sustained by his death, and offer their most sincere sympathy to the widow and other relatives of the departed."

Charitable Bequests and Donations.—The Alfred Hospital, Melbourne, has received a donation of £10 from his Excellency Sir George Sydenham Clarke, and the Australian Deaf and Dumb Congress Fund has received a donation of £5, also from Sir George Clarke. Under a will of the late Joseph W. Baker, formerly of Ballarat, but latterly of Sebastopol, retired civil servant, who died on October 13th and whose estate has been valued at £4275, 77 acres of land at Bungaree are left in trust to the Ballarat Orphan Asylum, and a cottage in Raglan-street and the residue of the estate are eventually to go to the Ballarat District Hospital.

Report of the Charitable Grants Department of Tasmania for 1902.—The expenditure on outdoor relief was £3329 10s 2d, being £90 9s 10d less than the amount voted. The repayments for the year were £133 15s 7d, as against £99 4s 5d in 1901. Nine blind persons have been maintained during the year at the expense of the State. The amount expended was £170 14s 9d, or £27 14s 11d less than in 1901. The average daily number of inmates maintained in the New Town Charitable Institution and the Launceston Benevolent Asylum during the last 10 years shows a decrease during that period of 229 inmates at the New Town Charitable Institution and of 60 inmates at the Launceston institution, or a total decrease of 289 inmates of charitable institutions. The strength of the New Town Charitable Institution on December 31st, 1902, was 371, and of this number no less than 249 were over the age of 70.

Sydney Medical Mission.—The third annual meeting of the Sydney Medical Mission was held at the Y.W.C.A. Hall on December 3rd. Lady Rawson presided, and there was a large attendance. The Medical Mission reaches that class which is too poor to afford the advantages of lodges, and which for various reasons is unable to benefit by the out-patients' departments of the hospitals, or whose illnesses are not suitable for the wards. Dr. Stillwell succeeded Dr. Carlisle Fox as medical superintendent. Visits paid to the homes of 495 patients, 2195; attendances at dispensary of 2644 patients, 10,309; operations under a general anæsthetic, 5; total number treated, 2644. One very satisfactory item on the balance-sheet was £119 16s 1d, representing payments by patients, as all these people were extremely poor. Officers were elected for the year. Before the meeting adjourned a number of subscriptions were promised.

The Open-Air Treatment in New Zealand.—According to *Sharland's Medical Journal* the results of the open-air treatment at the Nordrach Sanatorium, Dunedin, during the past quarter are as follows:—The number of patients treated was 15. The average gain in weight for the quarter of each patient was 10¼ lb. Two of the 15 contributed nothing to this total—one, having previously attained a fair weight, remained at a standstill in this respect; the other was at too advanced a stage of consumption to improve. Another patient gained 15½ lb. in four weeks. In most cases the improvement in general health was commensurate with the gain in weight. The number of patients undergoing treatment at the termination of the quarter was nine. This sanatorium is under the care of Dr. R. L. Stephenson.

Sanatoria for Female Consumptives.—A meeting of ladies was held in the Council Chambers, Liverpool, N.S.W., last month, to initiate a movement to assist in providing sanatoria, in addition to those at present existing, for indigent women afflicted with consumption. The Mayoress said sanatoria for poor consumptive women were necessary, and her object in convening the meeting was with a view to something being done locally

Digitized by Google

this meeting form itself into a committee, with power to add to their number, to assist in raising a fund to provide sanatoria for indigent consumptive women." It was decided to hold a public meeting in furtherance of the movement.

Dr. Charles Peabody, honorary director, and Warren K. Moorehead, curator, of the archæological museum at Phillips-Andover Academy, have returned from a two months' tour of research in Kentucky, Tennessee, Missouri, and Arkansas. In a cave in the Ozark Mountains, discovered by and named for an Arkansas newspaper man, they found five human skeletons, besides bones, arrow heads, and the split bones of animals, together with charcoal and ashes, all embedded in stalagmites in the cave. They may prove to be the oldest remains of man yet found in America.

Recently a chemist was fined £1 and £3 15s 10d costs for not reporting a case of suspected scarlet fever to the New Zealand District Medical Health Officer. The father of a child suffering from sore throat consulted the chemist and was supplied with a gargle. Subsequently other members of the same family becoming affected in a like manner, the chemist furnished medicine for internal use. Information ultimately reached the chemist to the effect that scarlet fever was prevalent in that district, but he failed to notify the authorities, and was mulcted as a warning to others.

At the Orange (N.S.W) Police Court on December 1st, Thomas Garaty, a well-known resident of Cargo, where he has been practising medicine for many years, was charged with a breach of the Medical Practitioners' Act by using the title "surgeon and physician," thereby implying that he was a legally-qualified medical practitioner. Defendant pleaded guilty, and was fined £50, in default six months' imprisonment. Inspector Saunders, who laid the information, stated that the defendant did not exhibit any sign on his premises, but that he had signed a medical certificate for a man summoned to the police court. Defendant, who stated that he believed the Medical Board would grant him the necessary certificate, was allowed a month in which to pay the fine.

PERSONAL ITEMS.

At the last meeting of the board of directors of the Royal Prince Alfred Hospital, Sydney, the resignation of the medical superintendent, Dr. C. B. Blackburn, who had almost completed his term of office, was received, and the following resolution was unanimously adopted:—"That this board, in accepting the resignation of Dr. C. B. Blackburn as medical superintendent, at the conclusion of his term of office for three years, desires to place on record its appreciation of his valuable services during that period. He has thoroughly maintained a high ideal as to his position, and has carried out his responsible duties with ability, tact and discretion, having proved himself to be both an excellent medical man and capable administrator, and the board wishes him all success in his future career."

Professor Anderson Stuart, M.D., LL.D., who has been appointed the accredited representative of New South Wales in regard to scientific matters at the Exposition at St. Louis, U.S.A., to be opened in May, 1904, left Sydney, per R.M.S. "Ortona," on December 8th.

Acting in accordance with his wish, the remains of the late Dr. R. T. Wylde were cremated at the local institution. The cremation was the third one performed in Adelaide, and the operation was completely successful.

to the Commonwealth Senate, and has been re-elected a member of the Legislative Council of New South Wales.

Dr. J. H. Phipps, of Mosman, Sydney, son of the late Dr. J. C. Phipps, Manchester, England, was married to Miss M. J. Johnston, eldest daughter of Mr. and Mrs. W. W. Johnston, of Wallsend, on November 25.

The resignation of Dr. Hare, inspector-general of charitable institutions and medical superintendent of the Diamantina (Queensland) hospital for chronic diseases, has been accepted as from December 31st instant.

As Dr. Espie Dods has been granted a short leave of absence, Dr. Marks has been appointed to act as health officer, etc., and Dr. McDonald as visiting justice to the penal establishment at St. Helena, Queensland, during his absence.

Dr. Campbell, late of Young, N.S.W., who has been in Toowoomba (Queensland) for the past six months, has returned to Sydney. Dr. Watson has taken over Dr. Campbell's work at the Toowoomba Asylum.

Dr. A. A. Palmer, of Elizabeth-street, Sydney, on November 22nd met with an accident owing to the exploding of a spirit lamp. Dr. Palmer was considerably burnt on the face and hands, but is progressing satisfactorily.

Dr. F. Glynn Connolly returned to Brisbane on December 3rd after a brief holiday.

Dr. W. N. Robertson has returned to Brisbane from a trip to the north.

Dr. Herbert, who acted as *locum tenens* for Dr. Martin, has commenced practice in Wellington, N.Z.

Dr. Porter, formerly of Waihi, N.Z., is about to commence practice at Mount Roskill, N.Z.

Dr. Herbert Clatworthy, late of Homebush, has commenced practice at East Brisbane.

Dr. J. B. McLean, late of General Hospital, has started private practice at Beaconsfield-terrace, Brunswick-street, New Farm, Brisbane.

Sir James Graham is a candidate for the Kiama (N.S.W.) State seat.

Dr. H. Wilson, of Germanton, N.S.W., has been invalided for some months, and has left for Tasmania to recruit his health. He was lately made the recipient of a purse of sovereigns from his many friends in the district, and was also presented with a handsome silver-mounted walking stick, suitably inscribed, as a token of esteem from the Germanton Lodge of Oddfellows.

Drs. Barnard and J. T. Wilson, with the staff of nurses of the Launceston Hospital, were presented on November 23rd with framed addresses and Maltese crosses in recognition of their services in combatting the recent outbreak of smallpox at Launceston, Tasmania.

Dr. W. Hull, late of Cootamundra, N.S.W., has succeeded to the practice of Dr. Little at Armidale.

Dr. A. S. Patton has resigned his appointment as health officer and medical officer at Normanton, Queensland.

Dr. A. Pentland has disposed of his practice at Wahroonga, N.S.W., to Dr. Gother Clark.

Dr. Henzell intends to resign his position at the Mackay (Queensland) Hospital, and go on a trip to Europe and America. He does not intend returning to Mackay.

Dr. W. S. Brown, the Parramatta (N.S.W.) local champion golfer of the past season, and winner of a

Digitized by Google

handsome cup, was lately presented with the trophy. The presentation was made by Dr. Bowman, president of the local golf club.

Drs. H. E. Astles, H. T. Thurstan, O. Burkitt, S. Macauly and J. Ramsay have resigned their positions as medical officers, Perth Public Hospital, W.A.

Dr. F. M. Blackwood, of Summer Hill, Sydney, is expected to return to New South Wales next year after a holiday spent in America and England.

Dr. J. J. Kelly has returned to Sydney from a trip to England.

Dr. E. J. Williams, of Melbourne, who went to South Africa as medical officer in charge of the steamer "Gracchus," is returning by the "Suevic."

Dr. C. C. McDonald has been re-elected Mayor of Mount Gambier, S.A., unopposed.

Dr. W. R. Olver has returned to New South Wales after some years stay in England.

Dr. G. Hurst, of Bathurst, and Dr. C. Ryan, of Melbourne, have been elected vice-presidents of the Ornithologists' Union.

MEDICAL APPOINTMENTS.

NEW SOUTH WALES.

Blackburn, C. B., B.A., Ch.M., M.D. (Syd.), to be Assistant Physician, Royal Prince Alfred Hospital
Cameron, D., M.B., C.M. (Edin.), to be Government Vaccinator at Henty.
Fairfax, E. W., M.B., Ch.M. (Syd.), M.R.C S. (Eng.), L.R.C.P. (Lond.), to be Assistant Physician, Royal Prince Alfred Hospital.
Harris, Matthew, M.B. (Aberd.), to be Physician to the Wee Waa Hospital
Lovegrove, J. F., M R.C.S. (Eng.), L.S.A. (Lond.), to be Government Medical Officer and Vaccinator at Gunning.
Macintosh, A. H., M.B., Ch.M. (Syd.), to be Medical Superintendent, Royal Prince Alfred Hospital, *vice* Dr. C. B. Blackburn, resigned.
Nolan, H. Russell, M.B., Ch.M. (Syd.), to be Assistant Surgeon for Diseases of the Ear, Nose and Throat, Royal Prince Alfred Hospital.
Ross, Chisholm, M.D., Ch.M., to be a Member of the Central Board for Old Age Pensions, during the absence from Sydney of Mr. J. D. Fitzgerald.
Service, J., L.R.C.S., L.R C.P. (Edin.), to be Government Medical Officer and Vaccinator at Rylstone.
Young, H. C. Taylor, M.D., C.M. (Glas.), to be Assistant Gynæcological Surgeon, Royal Prince Alfred Hospital.

The following have been appointed to the Commission of the Peace for New South Wales:—

Armstrong, Hugh, L.R.C.P. (Lond.), etc., Tamworth.
Brennan, John Joseph, M.B., etc., Cootamundra.
Burkitt, Edmund Henry, M.B., Dubbo.
Bernstein, Ludwig, M.D., Lismore.
Cameron, Donald, M.B., etc., Henty.
Craig Robert Gordon, M.B., etc., King-street, Newtown.
Davidson, Leslie Gordon, M.B., Ch.M. (Syd.), 425 Darling-street, Balmain South.
Davies, Thomas Sydney, L.R.C.P. (Edin.), etc., Lockhart.
McCredie, Robert Thomas, M.B., Brewarrina.
Pirie, James, L.R C.P. (Edin.), etc., etc., Liverpool.
Plummer, Walter George, L.R.C.S., etc., Brushgrove.
Sheldon, Herbert, M.B., Coonamble.
Shorter, Herbert Leopold Ashton, M.B., Norwood-st., Petersham.
Wilson, John Smith, M.R.C.S. (Eng.), etc., Campbelltown.

SOUTH AUSTRALIA.

The undermentioned persons have been appointed Public Vaccinators for the districts set opposite their names, viz.:—

MacBirnie, Stuart, M.B., Ch.M., of Port Germein.
Newland, Clive, M.B., of Morphettvale.

QUEENSLAND.

Berry, Robert Sewers, M.R.C.S. (Eng.), to be Medical Officer at Southport.
Hollick, Hubert Harry, M.R.C.S. (Eng.), L.R.C.P. (Lond.), to be Acting Medical Officer for the care of Lepers detained in the Lazaret at Stradbroke Island during the absence of the Medical Officer, and Acting Superintendent of the Institution for Inebriates at Dunwich during the absence of the Superintendent; also to be Acting Medical Superintendent of the Dunwich Benevolent Asylum during the absence of the Medical Superintendent.
Lloyd, George Tyndale, M.B., B.S., to be Health Officer, Medical Officer, Health Officer, and Visiting Surgeon to the prison at Mackay, *vice* Arthur Palmer Henzell, M.B., B.S. (Melb.), resigned.
Watson, J. F., M.B., M.Ch. (Melb.), to be Assistant Medical Superintendent of the Hospital for the Insane, Toowoomba, *vice* A. Campbell, F.R.C.S., resigned.

TASMANIA.

Morgan, Edward H., M.R.C.S., to be Officer of Health of Hamilton District, *vice* J. Stewart, deceased.
Penny, Henry J., L.K.Q.C.P., to be Officer of Health of St. Helena in succession to Andrew B. Morris, L.K.Q.C.P., resigned.
Watson, George, M.B., Ch.M. (Edin.), to be Officer of Health of Burnie District, *vice* Charles Rooke, M.R.C.S., resigned.

WEST AUSTRALIA.

Belgrave, T. B., M.D. (Edin), to be Inspector of Pearl Fisheries at Sharks Bay, *vice* Dr. P. J. Moloney, resigned; also to be District Medical Officer and Public Vaccinator at Denham, *vice* Dr. Moloney, transferred.
Davy, T. G., M.R.C.S., to be Physician (in-patients); Leschen, H. A., M.B., Ch.M. (Edin.), to be Physician (in-patients); Burkitt, O., L.R.C.P. & S.I, to be Ear and Throat Surgeon to the Perth Public Hospital.

NEW ZEALAND.

Wilson, H. M., M.B., B.C. (Cantab.), to be Assistant Medical Officer Wellington Hospital.

PROCEEDINGS OF AUSTRALASIAN MEDICAL BOARDS.

WEST AUSTRALIA.

Ambrose, Ethel M. M., M.B., B.S. (Adel.), 1903.
Bona, P. A., M.B. (Melb.). 1901.
Camm, T. C. L., M.B., B.S. (Melb.), 1903.
Ewbank. E., M.R.C S. (Eng.), 1887, L.S.A. (Lond.), 1887.
Frost, R. R., M.R.C.S (Eng.), 1870.
Grey, Wm. C., M.B., Ch.M. (Syd.), 1903.
Hitch, Fredk., L.S.A. (Lond.), 1879; M.R.C S. (Eng.), 1880; L.R C.P. (Lond.), 1881.
McKell, T. P., M.B., B.S. (Dub.), 1900; M.D. (Dub.), 1901.
Palmer, J. R., L.R.C.S. (Irel.), 1873; L.M.R.C.S. (Irel.), 1874; L.K. & Q.C P. (Irel.), 1873.
Thomson, J. E., M.D., M.S. (Edin.), 1880.

For Additional Registration.

O'Connor, M., M.D. (Dub.), 1903.

QUEENSLAND.

Ahern, John Joseph, M.B., B.S. 1897; R. (Univ. Irel.), L.S.A. (Dub), 1898.
Clatworthy, Herbert, L.S.A (Lond.), 1880; M.R.C.S. (Eng.), 1881.
Dolman, Edgar Winn Fox, M.R.C.S. (Eng.), 1901; M.R.C.P. (Eng.), 1901.
Hutton, John Robert, M.B , M.S. (Univ. Edin.), 1887.
MacDonnell, Edward Ronald Armstrong, L.R.C.P. & S. (Edin.), 1891; L F.P.S. (Glas.), 1894.

TASMANIA.

Hoskins, Arthur Thomas, L.R.C P. (Edin.), 1902; L.R.C.S. (Edin.), 1902; L.F.P.S. (Glas.), 1902.
Smith, Henry Gerald, M.R.C.S. (Eng.), 1876; L.S.A. (Lond.), 1896.

BIRTHS, MARRIAGES AND DEATHS.

BIRTHS.

CRIBB.—At Highbury, East Orange, N.S.W., on Tuesday, December 1st, to Dr. and Mrs. Cribb—a daughter.
McCREDIE.—On October 23rd, at her residence, Warkworth, N.Z., the wife of Dr. Andrew McCredie—a daughter.

Digitized by Google

daughter.

MARRIAGES.

ARMSTRONG — STRONG.—November 12th, 1903, at St. Clement's Church, Mosman, Sydney, Robert Alexander, eldest son of R. B. Armstrong, of Young, to Fanny Amy Peyton, eldest daughter of W. E. Strong, M.D., of Mosman.

ASHTON—BRUCE.—November 11th, at Christ Church, Lavender Bay, North Sydney, J. Hilton Ashton, M.R.C.S. (Eng.), L.R.C.P. (Lond.), son of late John Ashton, J.P., of Oldham, Lancashire, England, to Millicent, daughter of the late Robert Bruce, of Bathurst, N.S.W., and Mrs. Bruce, of Massagon, Mosman, Sydney.

McDONNELL—GILDER.—On November 25th, at St. Stephen's Cathedral, Brisbane, James R. McDonnell, only son of James McDonnell, West End, to Beatrice Emily (Trix), second daughter of the late Dr. Sherrington E. Gilder, M.D.

DEATHS.

BORTHWICK.—On November 25th, at High-street, Kensington, South Australia, after a short illness, William de B., only son of Thomas Borthwick, M.D., aged 17 years.

FORDYCE.—At a private hospital, Darlinghurst, Sydney, on December 12th, Alice Elizabeth, much loved wife of Dr H. Sinclair Fordyce, Maclean, N.S.W., and only daughter of Dr. Wrigley, Glen Innes.

LYNCH.—At Plymouth, England, November 28th, Annie Catherine, wife of S. F. Lynch, F.R.C.S., fourth daughter of the late Ewen Wallace Cameron, of "Ewenton," Balmain, Sydney.

MACEWAN.—On November 27th, at Dinmore, Queensland, Isabella Gilbert MacEwan, widow of Dr. D. M. MacEwan, in her 83rd year.

PAIN.—At Old Cairo, Egypt, Ethel, wife of E. Maynard Pain, M.B., Ch.M. (By cable.)

SCOTT.—On November 19th, at Ballarat, Victoria, Lucy Murray, wife of Dr. Affleck Scott, Ballarat.

STRONG.—December 3rd, 1903, at Milner-street, Mosman, Sydney, William Edmund, M.D., son of the late Rev. Robert Strong, Vicarage, Painswick, Gloucester, England; aged 75.

WALSH.—On November 15th, suddenly, at "Killcooley," Fellows-street, Kew, Victoria, William Butler Walsh, M.D., beloved husband of Maud Walsh, and son of late Rev. Edward Walsh, of Killcooley, county of Tipperary, Ireland, aged 49.

ZWAR.—On November 18th, at Clermont, Queensland, Hermann Zwar, M.B. (Melb.), aged 29 years.

HUDSON'S "EUMENTHOL" JUJUBES (Registered) are a Gum Jujube containing the active constituents of well-known Antiseptics, Eucalyptol, Thymus Vulg., Pinus Sylvestris, Mentha Arv., with Benzo-Borate of Sodium, etc., and exhibit the antiseptic properties in a fragrant and efficient form. Sold by all chemists; tins, 1s 6d. Are Antiseptic, Prophylactic, reduce Sensibility of Mucous Membrane. Mr. W. A. Dixon, F.I.C., F.C.S., Public Analyst of Sydney, after making exhaustive tests, says:—"There is no doubt but that 'Eumenthol' Jujubes have a wonderful effect in the destruction of bacteria and preventing their growth. . . . I have made a comparative test of 'Eumenthol' Essence and Creosote, and find that there is little difference in their bactericidal action."—[ADVT.]

SOME OF THE BEST MEDICAL BOOKS, RECENTLY PUBLISHED, WHICH CAN BE RECOMMENDED, ARE:—*Conts'* Manual of Pathology, 5th edition, illustrated, 31s 6d. *Rockwell*—Medical and Surgical Uses of Electricity, including X-ray, Finsen's Light, Vibratory Therapeutics, and High Frequency Currents, illustrated, 24s. *Casper and Richter*—Functional Diagnosis of Kidney Disease, with special reference to Renal Surgery, 7s. *Koplok*—Diseases of Infancy and Childhood, illustrated, 22s 6d. *Babcock*—Diseases of the Heart, illustrated, 25s. *Dudley*—Principles and Practice of Gynæcology, 3rd edition, illustrated, 24s. *Tuttle*—Diseases of the Anus, Rectum, and Pelvic Colon, illustrated, 25s.—All these books may be obtained from L. BRUCK, Medical Bookseller, Sydney.—[ADVT.]

of the British Medical Association.

PUBLISHED IN ACCORDANCE WITH THE ARTICLES OF ASSOCIATION.

* Members of the Council for 1903. † Auditors.

*Abbott, George Henry, Stanmore-road, Petersham
Alcorn, R. G., West Maitland
Alcorn, S. A., East Maitland
Allan, George, Summer Hill
Anderson, H. M., Cootamundra
Andrews, A., Albury
Armstrong, Hugh, Tamworth
Armstrong, George, College-street, Sydney
Armstrong, W. G., Town Hall, Sydney
Arthur, Richard, Mosman
Asher, Morris, Lithgow
Ashton-Shorter, H. L., Petersham
Ashwell, Frederick, Kurrajong, Richmond
Atock, M. H., Coolamon
Ayres, C., Hamilton
Bardsley, E. A., Oxford-street, Waverley (resigned)
Barkas, W. J., Paddington
Barnes, E. H., Muswellbrook
Barrington, Fourness, Macquarie-street, Sydney
Barton, J. à B. D., Dubbo
Bean, H. K., Wallsend
Beattie, J. A., Liverpool
Begg, W., Dudley, Newcastle
*Beeston, J. L., Newcastle
Beith, Robert, Kiama
Belli, R., Coonamble
Bennet, F. A., College-street, Sydney
Bennett, Agnes, Darlinghurst-road, Sydney
Bennett, F. A., Morpeth
Bennetts, H. G., Temora
Biffin, Harriet, Elizabeth-street, Sydney
Binney, E. H., Macquarie-street, Sydney
Birch, C. O., Liverpool
Blackall, P., Queanbeyan
Blackburn, C. B., Prince Alfred Hospital
Blackwood, F. M., Summer Hill
Blaxland, H., Gladesville
Blaxland, E. G., Burwood
Blue, A. I., Warialda
Boazman, W. H., Parkes
Boelke, Grace Fairley, Hunter's Hill
Boelke, P. W., Hunter's Hill
Booth, Mary, Macquarie-street, Sydney
Bourne, Eleanor, Brisbane Hospital, Queensland
Bowker, R. Steer, Macquarie-street, Sydney
Bowker, C. V., Liverpool-street, Sydney
Bowman, Reginald, Parramatta
Bowman, Alister Stuart, Singleton
*Brady, Andrew J., Lyons-terrace, Hyde Park, Sydney
Brandon, A. J. S., Upper William-street, Sydney
Bray, P. Dean, Orange
Brennand, H. J., England
Broad, W., Narrandera
Broinowski, G. H., Narrandera
Brown, W. S., Parramatta
Browne, Harold, Summer Hill
Broadbent, P. L., Berry
Bruce, C. W., Candelo
Buckley, E. W. ———
Burge, S. B., Waverley
Burgess, T. W. W., Wagga Wagga
Burfitt, W. A., Glebe

Digitized by Google

Burkitt, W. A. Handcock, Goulburn
Busby, H., Gulgong
Button, H. G., Junee
Caldwell, J. A., Maclean
Cameron, M. L., Grafton
Campbell, A., ———
Capper, H. S., North Sydney
Cargill, W. D., Carcoar
Carruthers, C. U., Balmain
Caspersonn, E., West Wyalong
Chenhall, W. T., Macquarie-street, Sydney
Chisholm, Edwin, Roslyn Gardens, Sydney
Chisholm, W., Macquarie-street, Sydney
Clatworthy, H., Brisbane, Queensland
Clay, W. R., Hornsby
Cleland, J. B., London
Clubbe, Charles Percy Barlee, 195 Macquarie-street, Sydney
Cobb, J. F., Sofala
Cocks, C. C., Wentworth
Cohen, Algernon A., Darlinghurst-road
Collins, P. J., Woollahra
Conlon, W. A., Reefton, New Zealand
Connor, F. G., Willoughby (resigned)
Cooley, P. G., Redfern
Cope, H. Roger, Glen Innes
Corlette, C. E., College-street, Sydney
Cosh, J. I. C., Ashfield
Coutie, W. Henry, Box 447, G.P.O.
Cox, Harrie, Warren
Cox, A. E., Forbes
Cox, F. H., West Wallsend
Crabbe, J. B., Chatswood
*Crago, W. H., College-street, Sydney
Craig, Gordon, Newtown
Crawley, A. J. C., Minmi
Cumming, W., Cairns, Queensland
Dalton, H. M., Murrumburrah
Davidson, L. G., Balmain
Davis, R. L., ———
Davis, G. C., 173 Liverpool-street, Sydney
Dawson, C. L., Berry
Dey, R., Wilcannia
*Dick, James Adam, Randwick
Dick, Robert, Waratah
Dixon, J. L. B., Bulli
Dixson, T. Storie, Elizabeth-street, Sydney
Dight, W. B., Riverstone
Doak, F. W., Mosman
Dowe, Samuel Aloys, Trangie
Dunlop, N. J., Newcastle
Durack, W. J., Marble Bar, W.A.
Eames, W. L'E., C.B., Newcastle
Edmunds, D. Taylor, Bathurst
Ellis, L. E., Manilla
Esler, A. W., ———
English, Jos., Yass
Evans, Thos., 211 Macquarie-street, Sydney
Ercole, E., White Cliffs
Failes, F. G., Coonabarabran
Fairfax, E. W., Liverpool-street, Sydney
Faithfull, R. L., Liverpool-street, Sydney
Farrell, R. M., Quirindi
Farrington, John, Suva, Fiji
Ferguson, R., Hunter-street, Newcastle
Feilchenfeld, E., Hay
*Fiaschi, Thomas H., D.S.O., Macquarie-street, Sydney
Fieldstad, Axel H., Rotorua, New Zealand
Finlay, Sinclair, Balmain
Fitzpatrick, Alfred E., Crookwell
Flashman, J. F., University, Sydney
Florance, Egbert, Cootamundra
Flynn, John, College-street, Sydney
Fordyce, H. S., Maclean
*Foreman, Joseph, Macquarie-street, Sydney
Forster, R. C., Narramine
Foster, A., London
Fox, Julia Carlisle, Auburn
Fox, R. A., Auburn
Freyer, J. K., Orange
Frizell, Thos., Strathfield
Fullerton, A. Y., Murrurundi
Furnival, Francis H., Auburn
Gaden, F. H. B., Grenfell
Gibbes, Alex. E., Greta
Gibson, John, Windsor
Gill, J. M., College-street, Sydney
Gillies, Sinclair, Macquarie-street, Sydney
Giommi, Marco, Gilgandra
Gledden, A. Maitland, College-street, Sydney
Goldsmid, J. A., Murwillumbah, Tweed River
Gormley, J. W., Taree, Manning River
Graham, Sir James, Liverpool-street, Sydney
Grieves, T. Arthur, Burraga
Griffiths, E. E., Blayney
Grigson, R. E., Muswellbrook
Gwynne-Hughes, D., Castlereagh-street, Sydney
Halcomb, C. D., Gladesville
Hall, E. C., Parramatta
Hall, F. W., College-street, Sydney
Hall, G. R. P., Manly
Halliday, J. C., Rockdale
Handcock, C. L., Goulburn
*Hankins, George Thomas, Elizabeth-street, Sydney
Hardcastle, C., Hillgrove
Harris, H. L., Tamworth
Harris, John, Newcastle
Harris, L. H. L., Macquarie-street, Sydney
Harris, John, Elizabeth-street, Sydney
Harris, W. E., Armidale
Harrison, Thos., Granville
Harbison, J. W., West Maitland
Harvey, L. W., Manly
Harvison, W. S., Cooma
Harwood, A. J., Adamstown
Hawthorne, E. S., Mudgee
Heald, S. H., Berrigan
Heggaton, R. D., Murrumburrah
Helsham, W. M., Richmond
Henry, A. G., Coast Hospital, Little Bay
Henry, Thos. Jas., Grafton
Hetherington, Henry Budd, Burwood
Hickey, E. Lewis, England (resigned)
Higgins, F. C., Penrith
*Hinder, H. V. C., Ashfield
Hodgson, C. R., Dulwich Hill
Hocken, J. P., West Wallsend
Höets, A. K., Burrowa
Hogg, Kate, Macquarie-street, Sydney
Holmes, H. C., Warialda
Hood, A. Jarvie, Macquarie-street, Sydney
Horton, W. H., Mudgee
Horsfall, A. H., Hamilton
Hozier, C. H. Smith, Lismore
Hughes, M. O'Gorman, Oxford-street, Paddington
Hughes, S. H., Macquarie-street, Sydney
Hull, Walter, Armidale
Hurst, George, Bathurst
Humphrey, E. M., Bellingen
Irwin, W., Singleton
Isbister, J. L. T., North Sydney
Jamieson, Sydney, Liverpool-street, Sydney
Jenkins, E. J., Macquarie-street, Sydney
Jenner, W. T., Leichhardt
Johnson, H. O., Parkes

Digitized by Google

Jones, P. Sydney, College-street, Sydney
Jones, R. H., Macquarie-street, Sydney
Jones, R. T., Ashfield
Jones, E. Tudor, Johnson-street, Annandale
Kane, F. W., Nowra
Kater, N. W., ———
Kearney, C. J., ———
Kelly, D., North Sydney
Kelly J. J., Summer Hill
Kelty, W., Orange
Kenna, P. J., 2 Lyons-terrace, Liverpool-street, Sydney
Kennedy, J. W., Hay
Kennedy, P., Albury
Kerr, D., Angaston, S.A.
Kerr, John, Wollongong
Kerr, A. L., Granville
Kiernander, H. B., Q.V. Post Office, Sydney
King, A. A., West Maitland
King, H. K., Nowra
Kingsbury, James, Stanmore-road, Enmore
Kinross, R. M., Inverell
Kirkland, Hugh, Lithgow
Kirkland, T. S., Macquarie-street, Sydney
Kirkwood, John, Cooma
Knaggs, Samuel Thomas, Japan
Lamrock, L. J., Waverley
Lane, Thos., Inverell
Langton, F. W., Redfern
Lawes, C. H. E., Petersham
Lawson, G. L. L., England
Leahy, J. P. D., Napier, N.Z
Leahy, W., Wagga Wagga
Lee, H. E., Gunnedah
Lee, T. Wood, Wollongong
Lee, H. H., Wollongong
Lees, G. J., Adelong
Lester, C. E., Mudgee
Leva, John, ———
Levy, A. L., Newtown
Liddell, F., West Maitland
Lipscomb, T. W., Leichhardt
Litchfield, W. F., Glebe
Little, J. H. ———
Littlejohn, E. S., Croydon
Lloyd, Henry Sanderson, Hunter's Hill
Lovegrove, J. F., Gunning
Ludlow, V. E., Waverley
Ludowici, E., ———
Luker, Donald, Liverpool-street, Sydney
Lyden, Michael John Stilton, Ireland
*MacCormick, Alexander, Macquarie-street, Sydney
MacCulloch, Stanthorpe H., College-street, Sydney
Macdonald, W. C., Ingham, Queensland
Macgregor, R. D., c/o Mr. Bruck, Castlereagh-street, Sydney
Machattie, Thomas Alfred, Bathurst
Macintosh, A. H., Prince Alfred Hospital, Camperdown
Mackellar, the Hon. Charles Kinnaird, M.L.C., Equitable Building, George-street, Sydney
Macky, G. A. Innes, Maclean
Mackenzie, J., Scone
Mackinnon, R. R., North Sydney
Macknight, C. M., Urana
Macky, Jas., Ulmarra
MacLaurin, the Hon. Sir Henry Normand, M.L.C., Macquarie-street, Sydney
MacLaurin, Chas., Macquarie-street, Sydney
MacLeod, Charles Gordon, 16 College-street, Sydney
Maclennan, J. N. E., Young
MacMaster, J., Penrith
MacMaster, Donald, North Sydney
Maffey, R. W. H., Singleton
Magnus, F. D., Liverpool-street, Sydney
Maguire, S., Petersham
Maher, Chas. H., College-street, Sydney
Maher, W. O., College-street, Sydney
Maitland, H. L., Liverpool-street, Sydney
Marano, Vincenzo, Elizabeth-street, Sydney
Marks, H. W., Macquarie-street, Sydney
Marr, A. S., Blayney
Marsden, C. E., St. Vincent's Hospital, Sydney
Marshall, G. A., College-street, Sydney
Marshall, Hezlett H., 2 Lyons-terrace, Liverpool-street, Sydney
Marshall, Joseph, Bega
Martin, T. M., College-street, Sydney
Matthews, Thos, Nowra
Maw, H. S., Bellingen
McCarthy, Marsham a'Beckett, Greytown, New Zealand
McClelland, W. C., Newtown
McCredie, J. L. M., Gulgong
McCredie, R. W., Brewarrina
McDonagh, John M., 173 Macquarie-street, Sydney
McDonnell, Edwd. P., Forbes
McDouall, H. C., Callan Park
McIlroy, J. B., Balmain
McKay, W. J. S., Darlinghurst
McLean, George, Waverley
McKillop, R., Goulburn
McLeod, James, Hurstville
McLeod, James, Rockdale
McMaster, R. D., Goulburn
McMurray, Wahab, 2 Lyons-terrace, Liverpool-street, Sydney
Meeke, A. H., Candelo
Menzies, G. D., Drummoyne
Meredith, J. B., Raymond-terrace
Michell, R. T., Blayney
Middleton, W., Mittagong
Miles, G. E., Rydalmere
Millard, R. J., Board of Health, Sydney
Mills, Arthur E., Strathfield
Milne. J. S., ———
Moffitt, J. F., Northampton, W.A.
Moore, J. B., Bathurst
Monti, S., Broadwater, Richmond River
Morton, S. W., Goulburn
Morton, W. J., Inverell
Morton, Gavin, Gladesville
Morton, John, Double Bay
Müller, O. H. P., Lismore
Müller, C. A., Elizabeth-street, Sydney
Mullins, George Lane, Waverley
Munro, A. Watson, Macquarie-street, Sydney
Munro, W. J., Macquarie-street, Sydney
Murray, George L., Mount Morgan, Queensland
Muscio, A., Emmaville
Muskett, Philip Edward, 143 Elizabeth-street, Sydney
Nash, Hon. J. B., M.L.C., Macquarie-street, Sydney
Nash, A. W., Lambton
*Newmarch, Bernard James, North Sydney
Nickson, W. J. R., Newcastle
Nolan, H. R., Macquarie-street, Sydney
Norrie, Andrew, Liverpool-street, Sydney
Olver, W. R., ———
Olivey, W. J., Nowra
O'Connor, A., Woonoona
O'Hara, A. A., Bayswater-road, Darlinghurst
O'Keefe, J. J., Kogarah
O'Neill, Gregory L., College-street, Sydney
Oram, Arthur Murray, Macquarie-street, Sydney
O'Reilly, Walter W. Joseph, Liverpool-street, Sydney

Digitized by Google

Page, E., South Grafton
Palmer, A. A., Elizabeth-street, Sydney
Park, A. J., Narrabri
Park, Joseph, Helensburgh
Parker, Arthur Frederick, Lismore
Parker, Joseph, Bullahdelah
Parry, L. Davenport, Picton
Paton, Robert Thomson, Richmond-terrace, Sydney Domain
Patrick, H. C., Taree
Pawlett, T. L., Crookwell
Pentland, Alex., Wahroonga
Perkins, A. E., Marrickville
Phipps, J. H., Mosman
Pirie, J., Liverpool
Plummer, W. G., Clarence River
* Pockley, F. Antill, Macquarie-street, Sydney
Pope, R. J., Macquarie-street, Sydney
Power, John Joseph, College-street, Sydney
Purser, Cecil, Lewisham
Pym, C. B., Marrickville
Quaife, Frederick Harrison, Woollahra
Read, W. H., Macquarie-street, Sydney
Read, Clarence, Chatswood
Reading, Richard Fairfax, 151 Macquarie-st., Sydney
Reddall, O. H., Randwick
Reiach, J., Molong
Reid, C. W., Watson's Bay
* Rennie, G. E., College-street, Sydney
Robinson, W. Charles, Cobar
Romeo, G., Guyra
Roseby, E. R., Nyngan
Ross, A. P., Condobolin
Ross, C., Macquarie-street, Sydney
Roth, R. E., D.S.O., Liverpool-street, Sydney
Russell, Grace, College-street, Sydney
Russell, R. U., Newcastle
Russell, W. J., West Maitland
Rutherford, A. H., Casino
Rygate, C. D. H., Brisbane
Salter, A. E., Homebush
Samuelson, G. S., Armidale
Sandes, F. P., City-road, Sydney
Sawkins, F. J. T., Elizabeth-street, Sydney
Schalit, M. A., Delegate
Scott, C. H., Bourke
Scott, E. H., Kumara, New Zealand
Scott, H. J. H., Scone
Scot Skirving, Robert, Elizabeth-street, Sydney
Sexton, J. P., Tamworth
Shand, J. Cappie, North Sydney
Sharp, W. Ramsay, Little Bay Hospital
Shaw, F. C. S., Mosman
Sheldon, S., Macquarie-street, Sydney
Sheldon, H., Coonamble
Sheldon, W., North Sydney
Shirlow, S. S., Balmain
Shortt, W., Corowa
Sinclair, Eric, Wahroonga
Sinclair, W. M., Wentworth Falls
Smith, G. H. Walton, Oxford-street, Paddington
Smith, V. A., Grafton
Smith, W. G. C., Ryde
Soulé, Milan, 848 Van Ness Avenue, San Francisco
Spark, John, Katoomba
Spark, E. J. S., Stockton
Spencer, Walter, Edgeware-road, Enmore
Sproule, W., Mittagong
Stacy, H. S, College-street, Sydney
Stanley, G. P., Tamworth
Stephens, Samuel, Walcha
Stevens, W. W., Little Bay
Stevenson, F. C., Moss Vale
Stillwell, Effie, 91 Macquarie-street South, Sydney
Stoker, H., Wagga Wagga
Stokes, Edward, Town Hall, Sydney
Stoney, R. B., Echuca, Victoria
Stuart, Thomas Peter Anderson, Professor, University, Sydney
Stuckey, F. S., Inverell
Studdy, W. B., North Sydney
Sweet, G. B., Whangarei, N.Z.
Taylor, George H., Government Medical Officer, Sydney
Terrey, Hedley, Kiama
Terrey, Caleb, Macquarie-street, Sydney
Thane, E. H., Wagga Wagga
Thane, P. T., Yass
Thomas, David, Manly
Thompson, J. Ashburton, Health Department, Sydney
Throsby, H., Bowral
Thring, E. T., Macquarie-street
Tidswell, Frank, Health Department, Sydney
Tilley, W. J., Lismore
Todd, Robert H., Phillip-street, Sydney
Tomlins, W. H., Kempsey
Tomlinson, W. R., Moree
Traill, Mark Windeyer, Burwood
Treloar, R. H., Wickham
Trindall, Richard B., Newtown
Turkington, H., ———
Vallack, A. Styles, Bowral
Vallee, Louis, Inverell
Veech, M., Molong
Vause, Arthur John, Tempe, Cook's River
Wade, T. F., Wollongong
Wade, R. B., Stanmore
Walch, C. C., Corowa
Walker-Smith, J., Glebe
Walley, T. B., Tamworth
Warren, H. Guy, Macquarie-street, Sydney
Warren, William Edward, Elizabeth-street, Sydney
Watt, G., ———
Watkins, S. C., Katoomba
Watson, Charles Russell, Newtown
Watson, J. W., Tumberumba
Webb, F. W., Croydon, Queensland
Welsh, D. A., Professor, Sydney University
West, F. W., Camden
West, W. A., Glebe
Wigan, George, Armidale
Wilkinson, W. Camac, Macquarie-street, Sydney
Will, A. Murray, Macquarie-street, Sydney
Williams, F. B., Bingara
Willis, H. L., Gunning
Willis, S. C., Mount Magnet, W.A.
Wilson, J. H., Millthorpe
Wilson, J. T., Professor, Sydney University
Windeyer, J. C., College-street, Sydney
Wood, Percy Moore, Liverpool-road, Ashfield
Woods, William Cleaver, Albury
Woodward, G. P., 51 Phillip-street, Sydney
Woodward, E. A., Wyalong
* Worrall, Ralph, College-street, Sydney
Wrigley, F. H., Glen Innes
Young, H. C. Taylor, Macquarie-street, Sydney
Young, R. W., Milton
Zlotkowski, F., Mungindi, N.S.W.

ANTIPHLOGISTINE.—This is a chemical compound of the consistence of soft putty, which was introduced to the profession in America about ten years ago by the Denver Chemical Manufacturing Co., and is said to be extensively used in the United States as a substitute for poultices. A very favourable notice of this preparation appeared in a recent number of *The Medical Press and Circular*. Particulars of the preparation will be found on page 29 of advertisements.

Digitized by Google

THE AUSTRALASIAN

MEDICAL GAZETTE

THE JOURNAL OF THE

AUSTRALASIAN BRANCHES OF THE BRITISH MEDICAL ASSOCIATION.

Published Monthly. TERMS:—YEARLY SUBSCRIPTION, £1. SINGLE NUMBER, 2s.

For Table of Contents see pages 22 and 24. For Index to Advertisements see page 10.

CADBURY'S

COCOA

Points from the Press:

The LANCET says:—"We are glad to find that Messrs. Cadbury draw attention to the fact that there are strong grounds for objection to the addition to Cocoa of certain foreign substances. **This resource is quite unnecessary, and indeed, pernicious. . . . . Cocoa alone is an excellent food as well as a stimulant, having a salutary action upon the nerve centres."**

HEALTH says:—"The perfect purity of CADBURY'S COCOA—a strong point with the makers—constitutes its firm hold upon the public confidence and the secret of its universal popularity."

The MEDICAL MAGAZINE says:—"CADBURY'S is without question the favourite Cocoa of the day. For strength, purity and nourishment, there is nothing superior to be found."

"CADBURY'S represents the standard of highest purity." ***The LANCET.***

CADBURY'S is COCOA and the BEST COCOA only.

Published by the New South Wales Branch of the British Medical Association, at 121 Bathurst Street, Sydney.

London: BAILLIERE, TINDALL & COX.

Digitized by Google

NEW BOOKS AND NEW EDITIONS:

MEDICAL and SURGICAL.

BARTON & WELLS.

A Thesaurus of Medical Words and Phrases, 534 pages, limp leather binding. 12s 6d (postage, 8d) 1903

W. S. BICKHAM, M.D.

Text-Book of Operative Surgery, covering the Surgical Anatomy and Operative Technique involved in the Operations of General Surgery. 984 pages, with 559 illustrations. 30s (postage, 1s 9d) 1903

J. MILNE BRAMWELL, M.B.

Hypnotism: Its History, Practice and Theory. 478 pages. 21s (postage, 9d) 1903

A. L. GALABIN, F.R.C.P.

Diseases of Women. Sixth edition, much enlarged, 695 pages, with 284 illustrations. 18s (postage, 1s 1d) 1903

G. A. HAWKINS-AMBLER, F.R.C.S.

Gynæcological Nursing. Second revised edition. 96 pages. 1s (postage, 2d) 1903

HENRY JELLETT, F.R.C.P.I.

Short Practice of Midwifery, embodying the treatment adopted in Rotunda Hospital, Dublin. Fourth edition, revised. 557 pages, with 152 illustrations and an appendix containing the statistics of the hospital for the last 13 years. 8s 6d (postage, 7d) 1903

THOMAS KOCHER, M.D.

Text-Book of Operative Surgery. Second English edition, translated from the fourth German edition by H. J. Stiles, F.R.C.S., with 255 illustrations, many with colour introduced. 22s 6d (postage, 1s 6d) 1903

P. LOCKHART MUMMERY, F.R.C.S.E.

The After-Treatment of Operations. A Manual for Practitioners and House Surgeons. 221 pages, with 29 illustrations. 5s 6d (postage, 5d) 1903

SURGEON-CAPTAIN BRUCE SETON.

Elementary Veterinary Manual, for the Use of Officers attending Veterinary Classes. 110 pages. 2s 6d (postage, 3d) n.d.

A. A. STEVENS, M.D.

Modern Materia Medica and Therapeutics. Third edition, entirely rewritten. 663 pages 17s 6d (postage, 1s 5d) 1903

J. CLARENCE WEBSTER, M.D.

A Text-Book of Obstetrics. 767 pages, with 383 illustrations, 23 of them in colours. 25s (postage, 1s 8d) 1903

W. HALE WHITE, F.R.C.P.

Materia Medica, Pharmacy, Pharmacology and Therapeutics. Eighth edition. 688 pages. 7s 6d (postage, 5d) 1903

CHRISTMAS PRESENTS

We have pleasure in calling attention to the unusually large and varied assortment of books suitable for Christmas Presents at present displayed on our tables and shelves.

A large stock of HOWARD CHANDLER CHRISTY'S "CARTOONS IN COLOURS" and "HEADS IN PASTEL" has just arrived. We are selling these beautiful pictures separately as well as in the sets in which they are issued, and our CHRISTY EXHIBITION should on no account be missed.

ANGUS & ROBERTSON, 89 Castlereagh Street, SYDNEY

(TELEPHONE 1168)

and at 205 SWANSTON STREET, MELBOURNE.

Digitized by Google

L. Bruck

Importer
SYDNEY.

Largest Stock of all the Latest
MEDICAL BOOKS
British and American.

Best ASEPTIC
SURGICAL INSTRUMENTS
AND APPLIANCES.

ALL STEEL INSTRUMENTS
Warranted Hand-Forged.

MEDICAL BATTERIES
Faradic, Galvanic, Cautery.

OPHTHALMIC TEST CASES
LARYNGOSCOPES
OPHTHALMOSCOPES.
Oculists' prescriptions attended to for Spectacles and Pince-Nez.

Best American and Hicks'
CLINICAL THERMOMETERS.

MICROSCOPIC APPLIANCES.
MICROTOMES.
Finest Slides and Cover Glasses.
Grubler's Celebrated Stains.
Serums—New Zealand Calf Lymph.

SURGICAL RUBBER GOODS and ... GLASSWARE.

STERILIZERS.

ANTISEPTIC DRESSINGS
Of SUPERIOR QUALITY
Bandages, Ligatures, etc.

SILK ELASTIC WEB GOODS.

Waterproof Sheeting, Splints, Trusses, Belts, etc.

ARTIFICIAL LIMBS
Made to Order.

Mr. BRUCK IS SATISFIED WITH REASONABLE PROFITS.

The Best House in Australia for SURGICAL INSTRUMENTS and APPLIANCES, STERILIZERS, BATTERIES, MICROTOMES, SURGICAL DRESSINGS, THERMOMETERS, &c.

Before making your purchases elsewhere, consult Bruck's Quarterly Revised Price List.

TELEPHONE No. 1770

Memo.

Mr. BRUCK begs to call attention to his large and varied assortment of the latest

MEDICAL BOOKS
British ... and American

and to his magnificent stock of

ASEPTIC SURGICAL INSTRUMENTS and APPLIANCES ...
MEDICAL BATTERIES, Etc.

guaranteed to be of the latest design, best quality and superior finish. Mr. BRUCK also keeps

PAUL HARTMANN'S Celebrated
Surgical & Antiseptic Dressings
Bandages & Ligatures.

*** **All Orders receive Mr. Bruck's personal attention, and are promptly executed.**

Mr. BRUCK does not employ TRAVELLERS, nor does he occupy expensive premises, and, being a direct importer, he is in a position to sell the very best quality of everything at lowest prices.

All Communications should be addressed to
THE SOLE PROPRIETOR:

L. BRUCK, Importer
15 Castlereagh St., Sydney.

ENTIRE SATISFACTION GUARANTEED.

Mr. BRUCK HAS NO AGENTS IN ANY OF THE OTHER STATES.

A

Digitized by Google

TIES, Crutches, Special Trusses, and Abdominal Supports; also Silk Elastic Belts, Chamois Leather Belts, Leather Knee Caps, and unusual sizes of Silk Elastic Stockings, etc., made to order by competent workmen.

Abdominal Belts of every description, Air Cushions, Silk Elastic Stockings, Anklets, Knee Caps, Thigh Pieces, Calf Pieces, all kinds of Trusses, etc., supplied at lowest prices.

L. BRUCK, 15 CASTLEREAGH STREET, SYDNEY.

A practical, simple, complete, and comprehensive system of MEDICAL BOOK-KEEPING.

Bruck's Condensed Medical Account Book

FOR AUSTRALIAN PRACTITIONERS,

Is one of the most perfect Medical Account Books published.

The size of the book is 15 ins. x 10½ ins. It contains 72 or 100 double pages, 31 lines on each page, affording space for as many patients. You can use as many pages in each month as may be required, and a new month may be commenced in the middle or any other part of a page, so that no paper is wasted.

Printed on good paper and substantially bound, with leather back and corners.

With 100 double pages .. .. .. Price **20s.**, or **22s. 6d.**, postage paid to all the States.
„ 200 „ „ .. .. .. „ **30s.**, or **34s.**, „ „ „ „

Specimen Sheet on application.

Bruck's Perpetual Medical Ledger,

For AUSTRALIAN PRACTITIONERS.

The size of the book is 13 ins. x 10½ ins.

Printed on good paper and substantially bound, with leather back and corners.

With 250 pages .. .. .. Price, **20s.**, or **22s. 6d.**, postage paid to all the States.
„ 350 „ .. .. .. „ **25s.**, or **28s. 6d.**, „ „ „ „
500 „ .. .. .. „ **30s.**, or **34s.**, „ „ „ „

Specimen Sheet on application.

Bruck's Duplicate Prescription Books,

Size, 6 x 3¼ ins. Price, 50 Duplicate Forms, **9d.**, or **8s.** a Dozen; 100 in each, **1s. 3d.**, or **13s. 6d.** a Dozen.

Specimen Copy gratis on application.

L. BRUCK, MEDICAL PUBLISHER,

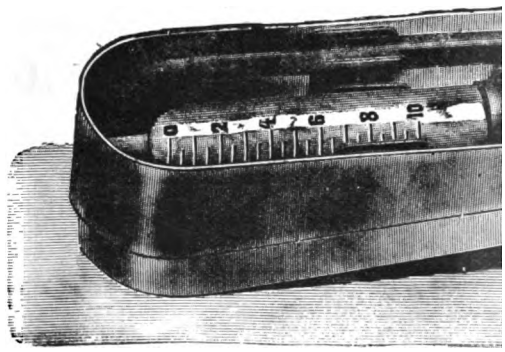
Office of "The Australasian Medical Directory and Handbook." 15 CASTLEREAGH ST., SYDNEY.

Digitized by Google

New Surgica

BY EVERY

All are of the highest possibl
are the lowest such goods ca



GLASS ASEPTIC SY
(In Metal Case, complete)

10 m., 6/-; 20 m., 8/-; 5 grms., 10/-;

ALL METAL SYRINGES in stock in

Denyer Bro

SYDNEY: 281 GEORGE
(Opposite Hunter Stree

MELBOURNE: Corner SWANST

Makers & Importers of S
Artificial Limbs (A. A. Marks' Pat

Telephone
3614 Sydney

BELTS, TRUSSES, HOSPIT
and DRESSINGS,

Digitized by Google

AUSTRALASIA

Ramsay's Medical Agency

For Sale and Purchase of Medical Practices;

.. Locum Tenens and .. Assistants supplied;

Ship Surgeons and ... Insurance Referees ... arranged.

Offices:

15 CASTLEREAGH ST.
Sydney.
Local Manager,
Mr. C. B. MORRISON.

80 SWANSTON ST.
Melbourne.
(Head Office)

2 A.M.P. BUILDINGS,
Adelaide.
Local Manager,
Mr. J. B. PITCHER.

Agencies:

SHARLAND & CO.
Wholesale Druggists, &c.
Auckland.

F. K. FAIRTHORNE & CO.
Wholesale Druggists,
Launceston.

Brisbane.

Perth.

MR. WILLIAM RAMSAY, the **Oldest Established Medical Agent,** has, amongst others, the following **Practices** for **Sale:—**

NEW SOUTH WALES:

Country Practice.—Cash take, £1200; appointments, over 500. Price, **£300. Terms.**

SOUTH AUSTRALIA:

Unopposed Country Practice.—Cash take, £700; appointments, £200. Price for practice, furniture, buggy, horses (3), all drugs and fittings complete, **£300.** Furniture, etc., optional. Recommended.

Memo. **Mr. RAMSAY has no connection with any other Agent.**

Surgeons Supplied Steamers to China and Japan.

TASMANIA:

Qualified Assistant required for Country Practice. Hospital experience. Liberal terms.

WEST AUSTRALIAN BRANCH:

LOCAL MANAGER:
A. ARNOLD, Esq., Wellington Street, Perth.

Mr. W. Ramsay's Business is carried on throughout **all the States** under this style only:

Ramsay's Medical Agency

HEAD OFFICE: ·.· ·.· **80 SWANSTON STREET, MELBOURNE**

Digitized by Google

BAILLIÈRE, TINDALL & COX'S

Standard British Authors

ROSE & CARLESS'
Manual of Surgery
(University Series)
Fifth Edition.
With New Illustrations, etc.
Price, 21s. net.
"The best Surgery for Students."—*Lancet.*

STEWART'S
Manual of Physiology
(University Series)
Fourth Edition. 5 Coloured Plates and 365 Illustrations.
Price, 15s. net.
"An ideal Manual."—*Brit. Med. Journal*

MONRO'S
MANUAL OF MEDICINE
(University Series)
Just out.
922 pages, 38 Illustrations.
Price, 15s. net.
"Will make room for itself by its own intrinsic merits."—*Medical Press.*

ALLINGHAM'S
OPERATIVE SURGERY
For Students & Practitioners.
Just out Profusely Illus.
Flexible Binding.
Price, 7s. 6d. net.

LENDON'S
Clinical Lectures ON Hydatid Disease of the Lungs
With 3 Plates and other Illustrations.
Price, 5s. net.

MUTER'S
Analytical Chemistry
Revised & brought up to date.
Ninth Edition just out.
Price, 6s. net.

LENNOX-BROWNE'S
Diseases of the Throat and Nose
Fifth Edition. 547 superb Illustrations in Colours.
Price, 31s. 6d. net.

HISTORY OF ANCIENT GYNÆCOLOGY
By W. J. STEWART McKAY, Senior Surgeon to the Lewisham Hospital for Women, Sydney.
Price, 7s. 6d. net.

MAYO ROBSON on DISEASE of the GALL-BLADDER and Bile Ducts
Third Edition in the Press.

CROSS & COLE'S
Modern Microscopy
Including MICROTOMES, MOUNTING, etc.
Third Edition.
Price, 4s. net.

DAWSON TURNER'S
Medical Electricity
RONTGEN RAYS & FINSEN LIGHT in the Treatment of Cancer, etc.
Third Edition. 168 Illus.
Price, 7s. 6d. net.

BROUARDEL and BENHAM'S
Death and Sudden Death
Just out.
Second Edition. 350 pages.
Price, 10s. 6d. net.

Libraries Furnished in all parts of the World
Full Catalogues Free on Application to

BAILLIÈRE, TINDALL & COX, 8 Henrietta St., Covent Garden, London

Digitized by Google

Serravallo's Tonic
(BARK AND IRON WINE)

Stimulates the Appetite. **Strengthens the Nerves.**
Regenerates the Blood. **Pleasant to the Palate.**

Highly recommended by Medical Authorities.

The opinion of leading Sydney Medical Men—"I have used it in several cases of Anæmic girls requiring a blood restorer as well as a stimulant, and with undoubted success."
Another—"I think it the best preparation of the kind in the market, and have frequently ordered it."
Again—"I have every confidence in this Tonic, and am introducing it in my Private Hospital."

From the 5th Medical Department of the Conseiller Aulique Prof. Drasche at the Imp. and Royal General Hospital at Vienna.

At the request of the maker, **China Serravallo Ferruginosa** was introduced into this Department by Dr. Stein, in order to try its value. To obtain a comparative measure of the results obtained, the patients were weighed every week, always with regard to the time of their meals, the amount of food eaten and the quantity of fæcal matter passed, and measured as to Hematoglobine, according to Fleischl, for the Erythrocyten coefficient, according to Thoma-Zeiss, and for the pressure of the blood, according to Blasch.

The results observed after giving the patients **China Serravallo Ferruginosa** will be seen in the following table:—

Age. Profession.	Illness.	Duration of Cure.	Weight of Body		Amount of Hemoglobine		No. of Red Corpuscles.		Pressure of the Blood	
			on entering	on leaving	on entering	on leaving	on entering.	on leaving.	on entering.	on leaving.
B. M., 30 years, Sempstress.	Anæmia Tumor adnex	6 weeks	Kilog 58	Kilog 63½	60%	75%	4.210.000	5.735.000	95 mm.	100 mm.
P. I., 19 years, Sempstress.	Chlorosis	7 weeks	42	46	20%	45%	4.060.000	5.040.000	110 ,,	120 ,,
P. I., 34 years, Smith.	Anæmia Ulcus ventric	4 weeks	61	64	30%	45%	2.400.000	3.240.000	90 ,,	90 ,,



The increase of appetite was ascribed by the patients themselves to this mixture, and it was most willingly taken on account of its agreeable taste.

Therefore **China Serravallo Ferruginosa** is most advisable in cases where the therapeutic use of Iron is intended to act as a tonic to the appetite such as in primary and secondary Anæmia, in slow convalescence, and especially for children.

GOLD MEDALS:
Exhibitions: Venice 1894, Kiel 1894, Amsterdam 1894, Berlin 1895, Paris 1895, Canea 1900, Napel 1900.

MERIT-DIPLOMA:
Medical Congress: Padua 1900.

SILVER MEDALS:
XIth International Medical Congress: Rome 1894.
Exhibitions: Napel 1894, Turin 1898.

BRONZE MEDALS:
Exhibitions: Quebec 1896, Quebec 1897.

HONOURABLE MENTION
Exhibition: Paris 1900.

Samples are sent to any Medical Man who wishes to investigate SERRAVALLO'S TONIC.

Sole Agents for N.S.W.:

Australian Drug Company, Ltd.,

19 & 21 O'CONNELL ST., SYDNEY.

Digitized by Google

A VITAL POINT

In view of the prosecutions which are likely to take place for the sale of defective TINCTURES, etc., it is manifestly of vital importance that pharmacists should be able to rely upon these and similar preparations being of full standard strength, and we think no better proof could be given of the high quality of our products than the fact that, although samples of TINCTURES made from **FLETCHERS' CONCENTRATED LIQUORS** and of SPIRIT ÆTHERIS NITROSI made from **ITROSYL** are taken in Great Britain for analysis almost daily by the Inspectors under the Sale of Food and Drugs Act, in not one single instance has the strength or quality of any preparation made from our **LIQUORS** been called in question.

FLETCHERS' CONCENTRATED LIQUORS are manufactured only by the Sole Proprietors,

FLETCHER, FLETCHER & CO. Ltd.

HOLLOWAY, LONDON, N.

18 O'CONNELL STREET, SYDNEY.

G. FRED. BIRKS,
Representative

FLETCHERS' CONCENTRATED LIQUORS AND THE NEW BRITISH PHARMACOPŒIA, 1898.

THE principle for which we have contended during the past fifteen years has at length received official recognition, and the more important alkaloidal TINCTURES, such as Belladonna and Nux Vomica, are now directed to be prepared from CONCENTRATED LIQUORS, thus establishing beyond a doubt the fact that where accuracy is required CONCENTRATED LIQUORS are regarded by the authorities responsible for the Pharmacopœia as the most trustworthy as well as the most convenient basis.

A complete Stock of all our Products is held by our Australian Agent:

G. FRED BIRKS, 18 O'Connell Street, Sydney.

Digitized by Google

BRAND & CO.'S

SPECIALTIES FOR INVALIDS.

PARIS EXHIBITION, 1900, 2 GOLD MEDALS.

ESSENCE OF BEEF

(Similar Preparations are also made from MUTTON, from VEAL & from CHICKEN)

GOLD CROSS OF HONOUR, AMSTERDAM, 1895.

This essence consists solely of the juice of the finest meat, extracted by a gentle heat, without the addition of water or of any other substance whatever. It contains, therefore, the most stimulating and exhilarating properties of the meat, calculated to invigorate the heart and brain *immediately*, without any fatty or other elements which require solution in the stomach. It has been introduced into medical practice as a stimulant, after loss of blood from any cause, and in cases of nervous exhaustion and enfeebled digestion. It is liquid in warm weather, but in cold weather, or when iced, it takes a jelly form, in which state it is usually preferred.

CONCENTRATED BEEF TEA.

This article contains all the soluble ingredients of the best beef, and may be taken by the most delicate stomach with perfect safety. **Brand & Co.** have the honour to state the most eminent of the Medical Profession constantly prescribe their BEEF TEA and other preparations as peculiarly adapted for invalids. It will keep in any climate.

BEEF TEA JELLY.—This article is prepared in tins, and consists of pure Beef Tea of about three times the ordinary strength.

SAVOURY MEAT LOZENGES.—Travellers and others will find these Lozenges substantial support in a very simple and convenient form.

PARIS EXHIBITION, 1889, GOLD MEDAL.

CAUTION.
Beware of Imitations.

BRAND & CO., LTD.,

No. 11 LITTLE STANHOPE ST., MAYFAIR,

LONDON, W.

FIRST ORDER OF MERIT, ADELAIDE, 1887.

Agent in Melbourne—P. F. GUTHRIDGE, 369 Collins Street.

INDEX TO ADVERTISEMENTS.

Page.

BOOKSELLERS AND PUBLISHERS.

Angus & Robertson 2
Baillière, Tindall & Cox, London 7
Bruck, L., Sydney ..... 3, 4 & 601
Lewis, H. K. (New Sydenham Soc.) 31

CHEMICAL PREPARATIONS.

Allen & Hanbury — "Allenburys' Foods" 23
Armour & Co.—Extract of Red Bone Marrow 28
Angier Chemical Co. — Petroleum Emulsion 43
Antikamnia 12
"Antiphlogistine" 29
Australain Drug Co. — Serravallo's Tonic 8
Bayer's Pharmaceutical Products 40
Benger & Co.—Benger's Food 19
Bishop, A., Ltd.—Salts of Kissingen and Vichy 26
Brand & Co.—Specialties for Invalids 10
Brandt's Malted Food 45
British Somatose Co.—Somatose 41
Burroughs, Wellcome & Co.—Preparations ..... 25 & 50
Cadbury & Co.—Cocoa 1
Carnrick & Co.—Liquid Peptonoids 47
Fassett & Johnson—Emol Keleet 35
Faulding, F. H., & Co.—Mulford's Pre-Digested Beef 14
,, Milk Emulsion of Cod Liver Oil 14
Fellows' Syrup of Hypophosphites ... 27
Fletcher, Fletcher & Co.—Concentrated Liquors 9
Gardner, R. W.—Syr. Acidi Hydriodici 39
Gardner's Hypophosphites 36
Hewlett, C. J. & Son—Original Preparations 13
Hudson's Eumenthol Jujubes 601
Lactopeptine 37
Langdon, H. J., & Co. — Preparations 29
Maltine Manufacturing Co., Ltd — Maltine Preparations ..... 21 & 49

Page.

Chemical Preparations.—(*Cont.*)

Neave, J. R. & Co.—Neave's Food .. 20
Nestlé's Swiss Milk 31
Parke, Davis & Co.—Vaccine Lymph 48
Purgen 15
Richards, W.—Capilla Hair Tonic ... 44
Seabury & Johnson—Mead's Plaster 11
Sulphaqua 36
Watson, John—Serums 12
"Yohimbin" 18
Zimmer & Co.—Quinine 32

DISPENSING CHEMISTS.

Brothwood, H. C., King-street 45
Rose's Pharmacy, George-street 39

HOUSE FURNISHERS.

Beard, Watson, Ltd. 16

JEWELLERS.

Fairfax & Roberts 34

MINERAL WATERS, WINES AND SPIRITS.

Apenta 24
Australian Wines—Eaton Grant & Co. 30
Gilbey's Dry Gin, etc.—Tucker & Co. Agents 39
Helidon Spa Water 38
Hunyadi Janos 30
Zetz-Spa Water 17

MASSAGE INSTITUTES, PRIVATE HOSPITALS, AND SANATORIA.

Ashburn Hall, Dunedin—for Mental Diseases 37
Baptista, H., M.D., Hunter-street, Sydney 42
Bay View House, Tempe 42
Ermelo Nursing Home 42
Job Mr. B., "Rewa," Phillip St. ... 35
Nunyara Sanatorium, Belair, S.A. ... 44

PUBLICATION.

The Australasian Medical Gazette ... 33

Page.

Massage Institutes, etc.—(*Cont.*

Ollé, A., Certificated Masseur 12
Roth, R. E., Hyde Park Chambers ... 39
Schuch, A., Masseur 38
Stafford, Miss 35
St. Malo Private Hospital 12

SURGICAL INSTRUMENT MAKERS.

Arnold & Sons, London 22
Arnold, G., Sydney 42
Bruck, L., Sydney ..... 3, 4 & 595
Denyer Bros., Sydney 5
McLennan, C. & Son, Sydney 44
Mayer, Meltzer & Jackson, Melbourne 36
Schmidlin, F., Sydney 16
Williams, R. P. & Co., Sydney 37
Zoeller & Ross, Ltd., Sydney 32

MEDICAL AGENTS.

Backhouse & Goyder 46
Loxton, F. W. 598
Ramsay, W., Sydney and Melbourn 6

TAILOR.

Hagon, R. C., King-street 44

MISCELLANEOUS.

Hall's Mercantile Agency 39
Knowles Automobile and Motor Power Co., Ltd. 34
Perdriau & Co.—Rubber Goods 30
Pure Calf Lymph 44
Watson, R., Carpenter 35
Simpson & Son, Saddlers, etc. 38
Young, R. F., School of Physical Culture 44

UNDERTAKERS.

Coffill & Co., Sydney 38

Digitized by Google

Pharmacal Perfection.



MEAD'S Rubber Adhesive Plaster.

PERFECTLY pliable, and applied without heat or moisture, the ordinary body temperature being sufficient to insure adhesion.

The adhesive material is NON-IRRITATING, and having combined with it a reliable antiseptic, septic conditions are prevented, it retains its adhesive properties in any climate, and by reason of its superiority in all essential qualities **it is preferred throughout the world to all other makes by all first-class surgeons as a perfect surgical adhesive dressing.**

1-yd. rolls, 7 ins. wide, plain or porous.
5 „ „ 7 „ „ „ „
5 „ „ 12 „ „ plain only.

ON SPOOLS (see illustration).
Width ... ¼ ½ 1 1½ 2 2½ 3 inches.
Length ... 10 yards and 5 yards.

SEABURY'S Oxide Zinc Adhesive Plaster

is offered as a more bland surgical adhesive, deriving soothing properties from the incorporated OXIDE OF ZINC. Aseptic, Anti septic, and strongly adhesive. **Superior to any other Zinc Oxide Adhesive Plaster,** and supplied in all forms in which **MEAD'S RUBBER ADHESIVE** is furnished.



Trade Mark.

SEABURY & JOHNSON,

Original Manufacturers of Pharmacopœial and Surgical Plasters in Rubber Combination, Antiseptic Dressings & Absorbents, etc.

LONDON: 31 & 32 Snow Hill. **SYDNEY:** 7 Barrack Street.

Sole Representatives: **FASSETT & JOHNSON.**

Full Line of SEABURY & JOHNSON'S Standard Goods kept in Stock by all Australian Wholesale Houses.

Digitized by Google

Antikamnia

OPPOSED TO PAIN

In the  **Does not depress the Heart**

Treatment

of melancholia with vaso-motor disturbances, anæmic headaches, emotional distress, in relieving the persistent headache which accompanies nervousness.

In neurasthenia, in mild hysteroid affections, and in the various neuralgias, particularly ovarian, in the nervous tremor so often seen in confirmed drunkards, this drug has a beneficial action. It is most useful in rheumatic pains, and will be found a safe and pleasant hypnotic.

ANALGESIC — ANTIPYRETIC — ANODYNE.



Antikamnia and Codeine Tablets. (4½ gr. Antikam. ½ gr. Sulph. Codeine.)

In the grinding pains which precede and follow labour, and the uterine contractions which often lead to abortion, in tic douloureux, brachialgia, cardialgia, gastralgia, hepatalgia, nephralgia, and dysmenorrhœa, immediate relief is afforded by the use of this combination, and the relief is not merely temporary and palliative, but in very many cases curative.

Antikamnia powdered and 5-gr. tablets
Antikamnia and Codeine (5-gr. tablets only) } 1-oz. packages, price in London, 4/6.

SERUMS.

ANTI-DIPHTHERITIC. ANTI-STREPTOCOCCIC. ANTI-TETANIC.

JOHN WATSON begs to intimate to the Medical Profession that he is now landing, direct from the Pasteur Institute, Paris, a full supply of the above mentioned serums, and that he has made arrangements which will ensure the receipt of regular supplies every month. Hitherto the irregularity of the shipments has caused frequent annoyance and inconvenience. A new system has now been inaugurated, also a complete telegraphic code, which it is confidently expected will entirely obviate all risk of supplies becoming exhausted.

THE PASTEUR INSTITUTE have also fixed their scale of charges for all these serums as low as possible. Bottles of 10 c.c., 3/6 each; by post 4/-. Directions for use accompany each bottle.

DR. ROUX' HYPODERMIC SYRINGES by Collin, of Paris, highly finished, sterilizable, in pure nickel cases, 20 c.c., 27/6 each, 5 c.c., 17/6 each.

FRESH VACCINE LYMPH, obtained weekly from the New South Wales Vaccinal Institute, as supplied to the Board of Health, 1/6 per tube; by post 1/8.

JOHN WATSON, Pharmaceutical Chemist, 581 George St., Sydney,

Appointed by the Pasteur Institute Sole Distributing Agent for Australasia.

ST. MALO PRIVATE HOSPITAL,

RIDGE STREET, NORTH SYDNEY.

Medical, Surgical, and Obstetric Cases

Terms: From £3 3s. per week.

Sister E. GERTRUDE WALKER.

ARCHIBALD OLLÉ,

Certificated Masseur

Electrolysis for the removal of Superfluous Hair.

Electric, Medicated, Dry Hot-air, Russian Vapour, Dry Static, Ozone, Sinusoidal, and Electric Light Baths. Massage and Medical Gymnastics.

Trained Masseuse for Ladies.

28 CHARLOTTE STREET, ASHFIELD.

Telephone 171, Ashfield.

X-RAYS AND HIGH FREQUENCY CURRENTS FOR D'ARSONVALISATION.

Digitized by Google

C. J. HEWLETT & SON'S ORIGINAL PREPARATIONS.



"LIQ. SANTAL FLAV. C. BUCHU ET CUBEBÆ"

(HEWLETT'S).

THE ORIGINAL PREPARATION.

Report of "The Practitioner."

"Experience has shown this preparation to possess the same efficacy as Santal Oil itself. It mixes perfectly with water, and has a taste by no means disagreeable, in which particular it contrasts very favourably with the ordinary mixture it is intended to replace."

To ensure obtaining this preparation, please write: "Liq. Santal Flav. c. Buchu et Cubebæ (Hewlett's)."

"MIST. PEPSINÆ CO. C. BISMUTHO"



(HEWLETT'S).

COMPOSITION. — Pepsin, Bismuth, Hydrocyanic Acid (P.B.), Tinct. Nux Vomica, &c.

An elegant preparation, miscible with water, invaluable in Gastric Catarrh. Pyrosis, Carcinoma, and all forms of Atonic and Irritative Dyspepsia.

Dose:

Half to one fluid drachm diluted.



"MIST. DAMIANÆ CO."

(HEWLETT'S).

This reliable preparation contains Damiana, Nux Vomica, etc., combined with Medicinal Bitters and Aromatics, and is perfectly miscible with water. It possesses all the special properties of Damiana in the most convenient form—its alterative effects on the alimentary canal and tonic action upon the brain and nervous system generally. In the numerous forms of Neurasthenia it has been highly successful, as it soothes the stomach, invigorates the nervous system, and relieves the exhaustion.

Dose:

One to two fluid drachms in water.

"MIST. HEPATICA CONC."



(HEWLETT).

COMPOSITION.—Ext. Cascaræ, Rhei, Jalapin, Podophyllin, Cocainæ Hydrochlor, $\frac{1}{10}$ gr., and Aromatics in each drachm.

Invaluable in Chronic Biliousness, Jaundice, and all torpid conditions of the Liver. Useful in Constipation, especially when accompanied with depression and general *malaise*. Does not cause griping or sickness.

Dose: 10 to 60 minims.

In 10, 22, 40 and 90-oz. Bottles.

"MIST. SENECIO CO." (HEWLETT'S).

CONSTITUENTS—Senecio, Hydrastis, Viburnum, Pulsatilla, &c.

This compound has proved a very efficient remedy in Amenorrhœa, Dysmenorrhœa and Menorrhagia. As a general uterine tonic and alterative it is most useful, and although possessing distinct sedative properties it is quite free from morphine, cocaine, bromides, etc., and may therefore be safely employed where required.

Dose: Half to One Fluid Drachm.

Price (in England), 10s. 6d. per lb., packed, for dispensing only, in 10, 22, 40 and 90-oz. Bottles.

CAUTION.—*The uniform success which has attended the administration of these remedies during the last twenty years has caused a host of worthless imitations to be offered to the Medical Profession. These imitations, while closely copying the title, utterly fail to approach THE ORIGINAL PREPARATIONS in quality, and only give cause to disappointment and failure.*

To ensure obtaining the Original Preparations, Physicians are earnestly requested to write "HEWLETT'S."

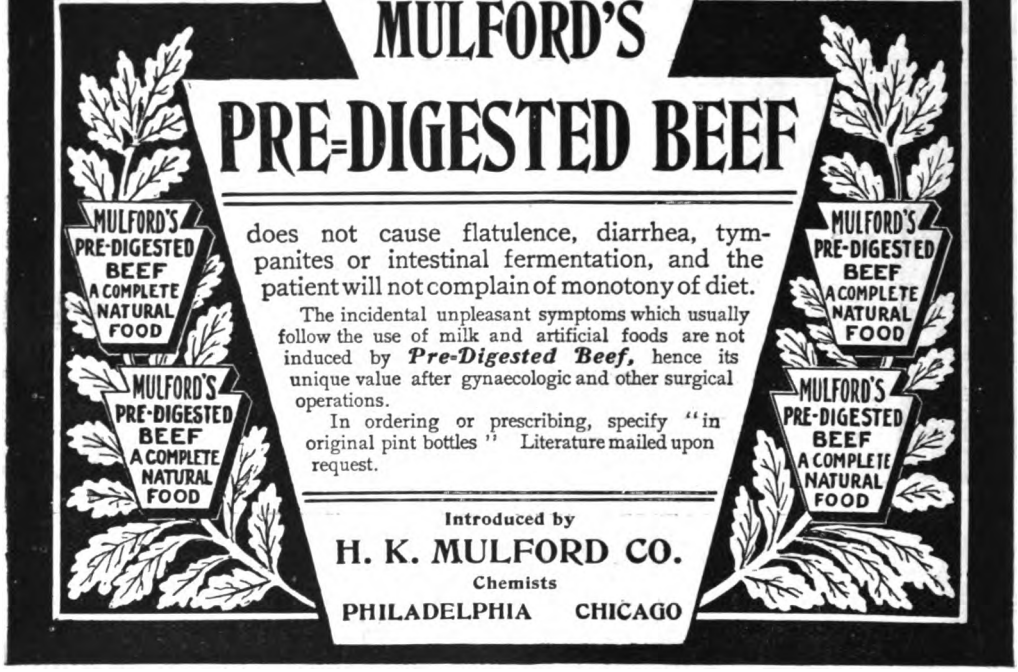
INTRODUCED AND PREPARED ONLY BY . . .

C. J. HEWLETT & SON, Wholesale and Export Druggists,

40, 41 & 42 CHARLOTTE STREET, LONDON, E.C.

Australian Representative: Mr. J. D. HEWETT, Box 162, G.P.O., Melbourne.

Digitized by Google



Sole Agents for Australasia: F. H. FAULDING & CO., ADELAIDE, PERTH, SYDNEY.

FAULDING'S

MILK EMULSION

An Emulsion of Cod Liver Oil

In combination with the Hypophosphites of LIME and SODA.

The most palatable and permanent emulsion ever manufactured. No other emulsion yet introduced to the profession can compare with it as regards palatability, absence from rancidity, and results. The effects in cases of Tuberculosis, Chronic Cough and Wasting Diseases generally are astonishing, *and free samples will be forwarded to any medical man desirous of testing it.*

L.R.C.S., L.M., L.K. & Q.C.P.I., writes:—"When other suitable cases for the use of your Milk Emulsion occur in my practice I am determined to further test it, as it seems to me absolutely the best Emulsion of Cod Liver Oil I have seen, and the only one that is palatable to children and adults alike."

L.R.C.P. & S., Edin., writes:—"I have much pleasure in stating that for some months past I have been prescribing your Milk Emulsion with good effect. I find my patients take it well, more easily than any other Emulsion of Cod Liver Oil; it agrees better and there is less repeating.

SOLD IN LARGE AND SMALL BOTTLES.

F. H. FAULDING & CO., 54 Great Tower St., London, E.C.

And at ADELAIDE, SYDNEY and PERTH.

Wholesale Agents for Victoria and Tasmania: Messrs. PETERSON & CO., 348 Flinders St., Melbourne.
Wholesale Agents for New Zealand: Messrs. S. KIRKPATRICK & CO., Limited, Nelson & Wellington.

Digitized by Google

"THE NEW IDEAL PURGATIVE."

PURGEN

"THE NEW IDEAL PURGATIVE."

PURGEN is the mildest aperient known, is pleasant in taste, not drastic but certain in action; it is not absorbed, and therefore, even in large doses, is harmless.

PURGEN is non-irritating, and hence should be the purgative chosen in pregnancy and the puerperal state, and in diseased or irritable kidneys.

PURGEN is strongly recommended by the continental authorities, and is being used in the London Hospitals.

PURGEN is manufactured in tablets of three strengths, and these are known as:

INFANT PURGEN,
FOR CHILDREN.

ADULT PURGEN,
FOR ADULTS AND THE SUBJECTS OF CHRONIC CONSTIPATION.

STRONG PURGEN.
SPECIALLY PREPARED FOR INVALIDS.



The Dose is in each case One to Two Tablets, each Tablet corresponding to ¾, 1½, and 7½ grains of Dihydroxyphthalophenone respectively.

Packed in boxes only, bearing the above Registered Label, the Infant and Adult Strengths having 25 tablets in the box, and the Strong 6 tablets.

A few Opinions of the English Medical Profession.

"Dr.——has been using the Purgen sent him and the action of the drug is so perfect that he now wishes a supply of the three sizes; *of all the samples of drugs he has had sent him* during the past 40 years, nothing has given him the satisfaction in practice to come up to Purgen."

"I received your sample of the three different strengths of Purgen. At the time I was often suffering from a terrible attack of obstruction of the bowels, and was near having to undergo a severe operation. I took the two Strong Purgen, and they acted after four hours, eleven times, both as a cholagogue and hydrogogue cathartic, *without causing any griping whatever*."

"I have tried Purgen in a case of Colic due to obstinate constipation and have found it *to act beyond my highest expectation*: -painless, palatable and thorough."

"I tried two Strong Purgen in the case of an old lady who has had most obstinate bowels for many years, and in whose case *all the usual purgatives were unavailing*, and she declares that nothing has done her so much good, and has requested me to get her a fresh supply.'

"I gave the box you sent me to one of my lady patients, who is very pleased with the certainty and regularity of the Tablets. Personally I think them an admirable and useful purgative."

A Doctor writes:—"Purgen has met with his entire approval, and has been quite a success with one of his lady patients."

☛ For a full description of this New Ideal Purgative, see the Paper read before the British Medical Association at Manchester, last year. *Vide The British Medical Journal* of Oct. 18th, 1902, pages 1224—1227.

Important Notice.—Physicians when prescribing Purgen should be very careful to write "KIRBY" after the word "Purgen," in order to ensure their Prescriptions being properly dispensed.

Purgen may be obtained from the following Wholesale Houses:—

AUSTRALIA.—***Sydney and Brisbane:*** **Elliott Bros. Ltd.** ***Melbourne:*** **Felton, Grimwade, & Co.** ***Perth:*** **Felton, Grimwade, & Bickford Ltd.** ***Adelaide:*** **A. N. Bickford & Sons Ltd.**

NEW ZEALAND.—***Auckland, Christchurch, Dunedin, and Wellington:*** **Kempthorne, Prosser & Co., New Zealand Drug Co. Ltd.**

Who will also be glad to supply Medical Men with Samples and Literature Free of Charge.

H. & T. KIRBY & CO. LTD., 14, NEWMAN STREET, LONDON, W.

Digitized by Google

BEARD, WATSON, Ltd.

House Furnishers

IMPORTERS of

Carpets, Linoleums and all Floor-Coverings,
Artistic Draping Fabrics,
Blind Materials, Curtains and Hangings,
Bedsteads, etc.

MANUFACTURERS of

First Quality Bedding and Furniture of every description.

CABINET MAKERS and UPHOLSTERERS.

Reliable Materials of Good Quality at Moderate Prices

361 & 363 George St., Sydney.



HEATERS for Dry Hot Air Treatment

Complete with Covers, Thermometer to 400°; Gas Burner and Tubing, or Kerosene Stove if Gas is not available.

Portable Accumulators

For Light, Cautery and X Ray work.

MEDICAL Batteries

For all purposes, for Doctors and Patients.

X RAY APPARATUS

Kept in stock. A complete X Ray Apparatus is always in readiness for Screen Examinations or to take Radiographs of Patients.

Oculists' Prescriptions

Dispensed at Moderate Rates.

F. SCHMIDLIN, Electrician

83 Elizabeth Street, Sydney.

Digitized by Google

et 90 o, e

ing.

is

Obtainable at all Leading Hotels, Stores,

EY

Digitized by Google

NESTLÉ'S

Percentage of BUTTER-FAT

Six samples of **Nestlé's Milk** bought at random at six different shops, and analysed by **Mr. Otto Hehner**, late President of the Society of Public Analysts, contained an average of

13·13 per cent. of Butter-Fat.

Condensed SWISS MILK

The Richest in Cream

HENRI NESTLÉ, 48 Cannon St., London, E.C., England.

YOHIMBIN

Is the name of a new Alkaloid obtained from the bark of the Yohimbehe tree (German West Africa) by DR. L. SPIEGEL, in the Pharmacological Institute of Berlin University, and manufactured for medical purposes by the "CHEMISCHE FABRIK GUESTROW." The specific action of the new drug on the sexual powers of man having been established by a series of experiments conducted by leading authorities on the subject, a large number of medical men in Europe and elsewhere have been induced to prescribe its use in cases of NEURASTHENIC IMPOTENCE, where it has proved to be efficacious without producing any ill bye-effects.

Professor Dr. MENDEL, Berlin, writes:—"I have employed YOHIMBIN in about 40 cases of impotence. To begin with, I will mention that no untoward influence was noticed in any of the cases. In a number of cases where impotence was due to irritable weakness, a marked benefit was noticeable. The favourable results I have obtained have induced me to try the remedy, which I have prescribed for more than two years."

Professor Dr. EULENBURG, Berlin, says, referring to the above:—"I have been equally fortunate in my experience with YOHIMBIN, etc."; and concludes—"For impotence depending on Neurasthenia, I have every confidence in it, and have no hesitation in recommending it to the notice of the profession."

Professor Dr. DUHOT, of Brussels, writes:—"My own observations with YOHIMBIN were made on ten cases of sexual Neurasthenia, complicated by impotence either partial or complete. Of my ten cases, only two failed to respond to the treatment. In most of them the good results manifested themselves from four to five days after the treatment was commenced, and gave rise to marked improvement, not only physically, but also mentally."

YOHIMBIN may be obtained through the Chemists, or direct through us, at the undermentioned price.

The Direct Agencies 102 Clarence Street, . . SYDNEY . .

WHOLESALE AGENTS FOR AUSTRALASIA.

Agents for Victoria: HESSELMANN & Co., QUEEN STREET, MELBOURNE.
Agents for Queensland: C. ZOELLER & Co., COURIER BUILDINGS, QUEEN STREET, BRISBANE.

1 Box of 5 Glass Tubes, each containing 10 Tablets, 12/6

Pamphlets and Physicians' Samples may be obtained free on application.

Digitized by Google

AWARDS.

GOLD MEDAL, International Health Exhibition, LONDON.
FIRST ORDER OF MERIT AND MEDAL (Highest Award), ADELAIDE.
HIGHEST AWARD, Medical and Sanitary Exhibition, LONDON.
FIRST ORDER OF MERIT AND MEDAL, MELBOURNE.

Benger's Food

For INFANTS, INVALIDS, and THE AGED.

Notice to the Medical Profession.

BENGER'S FOOD is *NOT* a Malted Food, and it does not contain dried milk, which is a very poor substitute for fresh. It consists of a specially finely ground, nitrogenous, wheaten meal, cooked and impregnated with a suitable proportion of the fresh, natural digestive principles of the pancreas. When mixed with warm new milk or milk and water, as directed on each tin, these digestive principles not only render the farinaceous elements of the Food soluble (as in malted foods), but further, reduce the casein of the milk to a condition similar to that in which it exists in human milk, so that hard indigestible masses of curd cannot be formed in the stomach. BENGER'S FOOD forms a delicate and delicious cream, rich in all the elements necessary to maintain vigorous health. Infants thrive on it, and delicate or aged persons enjoy it

---

The Lancet *describes it as "Mr. Benger's admirable preparation."*

The London Medical Record *says:—"It is retained when all other foods are rejected. It is invaluable."*

The British Medical Journal *says:—"Benger's Food has by its excellence established a reputation of its own."*

The Illustrated Medical News *says:—"Infants do remarkably well on it. There is certainly a great future before it."*

A Government Medical Officer *writes:—"I began using your food when my son was only a fortnight old, and now (five months) he is as fine a boy as you could wish to see."*

From an eminent Surgeon: *"After a lengthened experience of Foods, both at home and in India, I consider Benger's Food incomparably superior to any I have ever prescribed."*

BENGER'S FOOD may be obtained in various sized Tins of Leading Chemists, &c., everywhere
Wholesale of all Wholesale Houses, or of

F. B. BENGER & CO., Ltd.,

Telegraphic Address: "Benger's, Manchester."

OTTER WORKS, MANCHESTER.

CONTRACTORS TO HIS MAJESTY'S GOVERNMENT.

Digitized by Google

Gold Medal Awarded, Woman's Exhibition, London, 1900.

NEAVE'S FOOD

For Infants, Growing Children, Invalids, and the Aged

SOLD IN 1-lb. AIR-TIGHT TINS

"This is an excellent Food, admirably adapted to the wants of infants and young persons, and being rich in phosphates and potash, is of the greatest utility in supplying the bone-forming and other indispensable elements of food. Although peculiarly adapted to the wants of the young, this Food may be used with advantage by persons of all ages."

SIR CHARLES A. CAMERON, C.B., M.D.,
Professor of Chemistry, R.C.S.I., Medical Officer of Health for Dublin, City and County Analyst.

"Very carefully prepared and highly nutritious, which latter cannot be said of some of the articles sold as Food for infants . . . Characterised by an excellent rich proportion of nitrogenous food substances and of valuable mineral ingredients."—*THE LANCET* (the leading medical authority of the world).

DELICATE INFANTS THRIVE WONDERFULLY ON IT.

Neave's Food is regularly used in the Russian Imperial Nursery.

JOSIAH R. NEAVE & CO., MANUFACTURERS, FORDINGBRIDGE.

A New Advertisement.

INDIA-RUBBER



Air Cushions	Fountain Syringes
Air Beds	Gloves
Air Bed Pans	Garden Hose
Bed Sheeting	Hot Water Bags
Drainage Tubing	Oiled Fabrics
Elastic Stockings	Oilskin Clothing
Elastic Bandages	Waterproof Coats
Enemas (P. Co. brand)	Waterproof Rugs
Finger Stalls	Waterproof Sheeting

PERDRIAU & CO.,

270 GEORGE ST., SYDNEY.

Complete Catalogues quoting and illustrating everything in the RUBBER TRADE posted on request.

SOCIÉTÉ CHIMIQUE des USINES du RHONE

(Formerly GILLIARD P. MONNET & CARTIER)

LYON, FRANCE.

Manufacturers of Chemicals, Serums, & Pharmaceutical preparations of all descriptions, comprising

Antidiabétine	Créosote
Analgésine	Diméthylphenylpyrazoline
Antipyrine (ph. alb.)	Formaldehyde
Bigallol	Formochloral
Bismuth (sous gallate de)	Gaiacophosphal
Bismuth dithiosalicylate (basique de)	Gufossol
	Hydroquinone
Bleu de Méthylène	Lactophénine
Bromure d' Ethyle	Lance Menthol
Carbonate de Créosote	Lance Ozone
Carbonate de Gaiacol	Nevralgine
Chloral Pyrazoline	Sérum Antidiphterique
Kélène (Chlorue d' Ethyle Pur)	,, Antistreptococcique
	Serums Medicamenteux
Créofossol	Tubes Medicinaux

Trillat Process Disinfection (Vapeurs de Formaldehyde)

Sole Agents for Australia:

H. J. LANGDON & CO.

122 WILLIAM STREET, MELBOURNE.

Digitized by Google

NUTRITIVE FOOD AND AN

Maltine

UNEQUALLED STAROH DIGESTANT.

"MALTINE" offers important advantages to those desirous of utilising the valuable properties of Malt in various lines of treatment. It is rightly characterised as—

1.—AN IMPORTANT NUTRIENT.

Because it has been found to contain the principles required to sustain strength and repair waste. Thus "MALTINE" is—

(*a*) A food rich in carbohydrates—dextrine and maltose. These carbohydrates are the most assimilable of their class, and constitute, probably, a form of nourishment that is more easily digested than any other. "MALTINE" is, then, a fat-making, force-giving food that is practically pre-digested.

(*b*) "MALTINE" also contains a good proportion of the albuminoids and phosphates of the grains. Dr. Milner Fothergill specially valued this characteristic of "MALTINE," pointing out that it was virtually the only means at our disposal for utilising vegetable albumen in a digestible or uncoagulated condition. Both the albuminoids and phosphates, derived from the grain by the process of malting, are in the most assimilable condition, and it is held that these natural phosphates are far more effective in the treatment of deficient bone formation than the salts in inorganic combinations.

Briefly, then, "Maltine" is a most easily digested Food, rich in the principles that make fat and build up flesh and bone.

2.—A VALUABLE DIGESTIVE AGENT.

(*a*) Because of its exceptional richness in diastase. This delicate hydrolytic ferment is very susceptible to change and impairment, and only long experience and careful study will make it possible to obtain the fullest amount in the extract. The same process that has ensured the richness of "MALTINE" in flesh-forming material is adapted to the preservation of diastase, and "MALTINE" contains its useful ferment in unexampled proportions. By its action "MALTINE" has a pronounced effect on all farinaceous food, rapidly converting the starch into maltose and dextrine, and thus, when through debility the system is unable of itself to properly perform this function, the use of "MALTINE" will effect the digestion of food, and both directly and indirectly nourish the system.

(*b*) "MALTINE" is not only of service in indigestion by reason of its action on the ingesta; it acts, further, as a digestive stimulant. Dextrin possesses undoubtedly the property of a gastric stimulant, causing an increased secretion of the gastric glands; and "MALTINE," by virtue of its dextrin, stimulates and gives tone to these functions.

Among the other features which have won such general appreciation for "MALTINE" may be mentioned its

CONVENIENT SEMI-LIQUID CONSISTENCE,

so much preferred by patients to the thick, viscid extracts; its

BRIGHT, CLEAR COLOUR and AGREEABLE FLAVOUR.

The uses of "MALTINE" are so well known that we need scarcely recapitulate them. Whenever it is desired to administer easily digested food containing the essential principles of nutrition, combat waste, improve the appetite, and counteract digestive weakness, "MALTINE" is used with the happiest results. Its usefulness in Infant Feeding deserves, perhaps, more attention. By its action on cow's milk, the hard curd is broken up and rendered more easily digestible. Mixed up with warm milk, with or without a little cereal food, it constitutes a most successful aliment for infants.

"As to diastase converting power, 'Maltine' is superior to the best extracts of malt I have ever seen."
—DR. STUTZER, Bonn.

"Clinical experience enables us to recommend it as a nutritive and digestive agent, in virtue of its albuminoid contents and its richness in phosphates and diastase."—BRITISH MEDICAL JOURNAL.

In ordering kindly specify "MALTINE COMPANY."

THE MALTINE MANUFACTURING CO., LTD.,

24 & 25 HART STREET, BLOOMSBURY, LONDON, W.C.


Digitized by Google

TABLE OF CONTENTS.

ORIGINAL ARTICLES: PAGE.

Abdominal Operations during Pregnancy. By E. T. Thring, F.R.C.S. Eng., Sydney 547

Some Surgical Experiences during the South African War. By Major Nisbet, M.B., C.M. (Edin.), Victoria. (Illustrated) 550

Acute Septic Infection of the Left Temporal Bone occurring during an Attack of Measles. By W. F. Taylor, M.D., M.R.C.S. (Eng.), Brisbane 556

Aural Discharges. By W. N. Robertson, M.B., Brisbane 561

Fatal Icterus Neonatorum. By A. A. Lendon, M.D. (Lond.), Adelaide 565

Some Common Causes of Backache. By Geo. Cuscaden, L.R.C.P., etc., Melbourne .. 566

Case of Cæsarean Section. By J. L. Beeston, L.R.C.S., L.K.Q.C.P., Newcastle 567

CLINICAL AND PATHOLOGICAL NOTES:

Congenital Genu Recurvatum. By T. W. Lipscomb, M.B., Ch.M., Sydney 568

Clinical and Pathological Notes—*Continued*— PAGE.

Abscess of Temporo-Sphenoidal Lobe—Operation—Recovery. By T. S. Kirkland, M.D., F.R.C.S., Sydney 569

An Unusual Case of Tubercular Peritonitis. By A. E. Perkins, M.B., Sydney 569

REVIEWS AND NOTICES OF BOOKS:

Tuberculosis: Recast from Lectures at Rush Medical College, in affiliation with the University of Chicago. By Norman Bridge, M.D. 570

Protozoa and Disease. By J. Jackson Clarke, M.B. (Lond.) 571

Atlas and Epitome of Human Histology and Microscopic Anatomy. By Privatdocent Dr. J. Sabotta 571

The Care of the Skin and Hair. By Jas. Starten, M.R.C.S. 571

Book of Poems. By Dr. J. W. Harbinson, Victoria 571

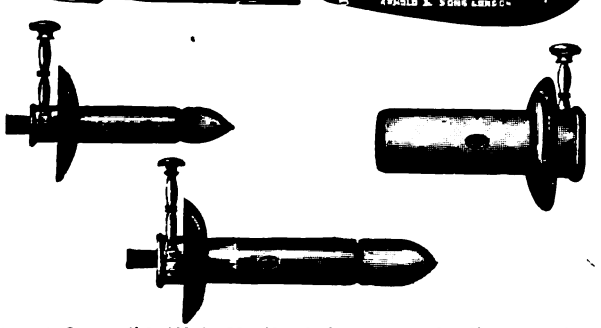
The Commonwealth Dental Review, Part 1, No. 1. Edited by Mr. Chas. Hall .. 571

Continued on page 24.

NEW TROCARS AND CANNULAE FOR EMPYEMA.

Suggested by W. TURNER, M.S. Lond., F.R.C.S., Senior Assistant Surgeon Westminster Hospital.

PRICE, With Silver Cannulae in Polished Mahogany Case, £3 3 0.



PRICE, With Silver Cannulae in Polished Mahogany Case, £3 3 0.

Extract from "British Medical Journal," April 5th, 1902:—

"Mr. William Turner, M.S. Lond., F.R.C.S., Senior Assistant Surgeon, Westminster Hospital, writes: Messrs. Arnold & Sons, London, have made for me a set of special trocars and cannulae for use in certain cases of empyema. They are flattened from side to side, and not circular as usual in other trocars, to enable them to pass through an intercostal space with greater ease. The cannulae are made of silver, and can be left *in situ* for ten days if necessary. The trocars are of very hard steel, and in consequence of their shape the end and the cutting edge project further than in the ordinary form. To minimise the danger to deep parts when the instrument is used each cannula is fitted with a movable shield, being fixed at any depth by a screw as in Durham's tracheotomy tube. The shape of the shield is similar to that of a bivalve tracheotomy tube, but is perforated by two long slots placed in such a manner that whatever be the inclination of the ribs the tube can be kept in position by tapes threaded through these slots and passed straight round the chest. The set consists of three, with one handle which screws into all the trocars. The sizes are as follows:—(1) Small, $\frac{5}{16}$ by $\frac{1}{4}$ in. and $1\frac{5}{16}$ in. long; (2), medium, $\frac{7}{16}$ in. by $\frac{5}{16}$ in. and $1\frac{5}{16}$ in. long; (3), large, $\frac{1}{2}$ in. by $\frac{1}{4}$ in. and $1\frac{5}{16}$ in. long. The sizes of the cannulae are inside measurements; the length is the effective length, namely, from the shield to the end of the cannula. The chief use I have put this instrument to, and have found it act extremely well, is to drain an empyema after incision of the skin under eucaine administered hypodermically in those cases where the administration of a general anæsthetic is especially dangerous on account of the condition of the patient."

ARNOLD & SONS, Surgical Instrument Manufacturers,

By Appointment to His Majesty's Government; The Honourable Council of India; The Admiralty; The Crown Agents for the Colonies; His Majesty's Prisons; Foreign Governments; Royal Chelsea Hospital; St. Bartholomew's Hospital; and the Principal Provincial and Colonial Hospitals, etc.

26, 30 & 31, WEST SMITHFIELD, and 1, 2, 3, 18 & 19, GILTSPUR STREET, LONDON, E.C.

(ESTABLISHED 1819.) Telegraphic Address—"Instruments, London." Factory—Little Britain, E.C. Telephone No. 518 (Holborn.

Digitized by Google

Two Points of much Importance.

The "Allenburys" Foods.

The great success attending the use of the "Allenburys" Milk Foods is in a great measure due to the two following important facts:—



(1) Their similarity in composition to human milk; the constituents being in the same relative proportions.

Mixed with water according to the directions, a humanized milk is provided.

(2) The readiness with which they can be digested and assimilated by the infant. Both foods being as easy of assimilation as maternal milk, and much more so than ordinary modified or diluted cow's milk.

These points are confirmed and substantiated by independent authorities.

Samples and descriptive pamphlet giving Analyses sent free to medical men on request.

Milk Food No. 1 From birth to three months.

Milk Food No. 2 From three to six months.

Malted Food No. 3 From six months and upwards.

Allen & Hanburys Ltd., London, Eng.

Australian Depot: 495 BOURKE STREET, MELBOURNE.

Digitized by Google

TABLE OF CONTENTS—continued from page 22.

	PAGE.
EDITORIALS:	
Preservatives in Food	572
Hospital Maintenance	572
THE MONTH	574
BRITISH MEDICAL ASSOCIATION NEWS:	
New South Wales	577
,, Council Meeting ..	579
South Australia	579
Queensland	581
West Australia	582
REVIEW OF CURRENT MEDICAL LITERATURE	583
CORRESPONDENCE:	
London	587
West Australia	589
Tasmania	589
Mechanism of the Paroxysmal Neuroses ..	590
Preservatives in Food	591
THE BATTLE OF THE CLUBS	591
REPORT OF MEDICAL OFFICER OF THE MEDICAL DEPARTMENT OF WEST AUSTRALIA	592
OBITUARY	593
PUBLIC HEALTH	593
LAUNCESTON SMALLPOX EPIDEMIC	595
HOSPITAL INTELLIGENCE	596
UNIVERSITY INTELLIGENCE	597
MEDICAL MATTERS IN PARLIAMENT	597
MEDICAL NOTES	598
PERSONAL ITEMS	599
MEDICAL APPOINTMENTS	600
PROCEEDINGS OF AUSTRALASIAN MEDICAL BOARDS	600
BIRTHS, MARRIAGES AND DEATHS	600
LIST OF MEMBERS OF THE NEW SOUTH WALES BRANCH OF THE BRITISH MEDICAL ASSOCIATION	601

"APENTA"

NATURAL HUNGARIAN APERIENT WATER.

Bottled at the Springs, Budapest, Hungary.

Approved by the Académie de Médecine, Paris.

I hereby certify that in chronic constipation, obesity and similar troubles, in which the use of a "Bitter-Water" is indicated, I have obtained favourable results with the "Apenta" Water.

Royal University, Leyden, January, 1901. **PROFESSOR DR. ROSENSTEIN.**

Sole Exporters: THE APOLLINARIS CO. Ltd., London.

Digitized by Google

The Survival of The Fittest

To obtain immediate results in

Anaemia, Neurasthenia,

Bronchitis, Influenza, Pulmonary

Tuberculosis,

and during Convalescence after

exhausting diseases employ

Fellows' Syrup of Hypophosphites

Contains—Hypophosphites of Iron
Quinine, Strychnine, Lime,
Manganese, Potash.

Each fluid drachm contains the
equivalent of 1-64th grain of
pure strychnine.

Special Note.—

Fellows' Hypophosphites
is Never Sold in Bulk.

Medical letters may be addressed to
MR. FELLOWS,
26 Christopher St., New York.

Digitized by Google

The Red Blood Corpuscles multiply more rapidly under the influence of

Extract of Red Bone Marrow

than under that of any other remedy

SPECIFY ARMOUR'S
as there are imitations

Armour & Company
CHICAGO

AUSTRALASIAN REPRESENTATIVES:
GOLLIN & COMPANY Proprietary, Limited
SYDNEY, MELBOURNE, ADELAIDE, WELLINGTON (N.Z.)

Digitized by Google

Antiphlogistine

AN EXTERNAL APPLICATION FOR INFLAMMATION & CONGESTION

Antiseptic, Non-Irritant, Exosmotic
Hygroscopic, Non-Toxic, Endosmotic

ANTIPHLOGISTINE combines all the good qualities of the old-time poultices, blisters, counter irritants and liniments, and has none of their objectionable features. Applied warm and thick it does all that any hot poultice can do—supplies heat and moisture—and yet it is not a poultice, for it goes further: abstracts exudates and liquor sanguinis, is antiseptic and indirectly anodyne.

In the treatment of INFLAMMATORY CONDITIONS—whether acute, sub-acute, or chronic—medical practitioners in many different parts of the world give ANTIPHLOGISTINE the preference over all other forms of local medication. ANTIPHLOGISTINE is extensively and successfully used in the treatment of

Bronchitis	**Periostitis**	**Contusions**	**Ulcers**
Pneumonia	**Adenitis**	**Synovitis**	**Felons**
Pleurisy	**Erysipelas**	**Cellulitis**	**Sprains**

ANTIPHLOGISTINE is a uniform, thick paste, possessing the consistence of soft putty. It gives the best results when applied warm and thick. The most convenient method of imparting heat to the preparation is to place the can into a vessel of hot water; but in no case should water be allowed access to the paste.

The ANTIPHLOGISTINE should come in direct contact with the parts under treatment by spreading over the affected area about one-fourth of an inch thick, then covering with absorbent cotton (or cotton-wool) and a suitable compress. When the part to be dressed is very sensitive, first spread the paste on cloth, or other suitable material, and then apply gently. One application of ANTIPHLOGISTINE lasts from six to thirty-six hours or more, according to the nature of the case under treatment, when it will peel off nicely, like the skin of a ripe banana.

Being powerfully hygroscopic, ANTIPHLOGISTINE is put up in seamless containers, sealed (air-tight), yet easily opened. For the convenience of prescribing medical practitioners there are four sizes of packages. The retail prices in Australasia are as follows:—SMALL, 10½ ozs., at **2/6**; MEDIUM, 17½ ozs., at **3/6**; LARGE, 34½ ozs., at **6/-**; HOSPITAL, 5 lbs., at **12/-**

ANTIPHLOGISTINE IS THE ORIGINAL PREPARATION.
It has been widely but never successfully imitated.

The Denver Chemical Manufacturing Co.

Headquarters and Laboratory: 57 Laight Street, New York
Branch Office for the United Kingdom: 110 Cheapside, E.C., London

ANTIPHLOGISTINE can be obtained from wholesale houses. Retail chemists gladly stock it on demand.

Digitized by Google

THE BEST NATURAL APERIENT WATER.

Hunyadi János

For CONSTIPATION

PROFESSOR D. LAMBL, OF WARSAW, Professor of Clinical Medicine at the University, writes: "Hunyadi János Bitter Water, besides being an excellent general aperient, has proved specially efficacious in the treatment of chronic constipation, venous obstruction and congestion, hæmorrhoids and obesity."

AVERAGE DOSE: A wineglassful before breakfast, either pure or diluted with a similar quantity of hot or cold water.

CAUTION Note the name "HUNYADI JÁNOS," the signature of the Proprietor, ANDREAS SAXLEHNER, and the Medallion on the Red Centre Part of the Label.

BUKKULLA WINES

VINEYARD PLANTED IN 1849, NEAR INVERELL.

PARIS — NAPOLEON III EMPEREUR — 1867

Oldest Wines in Australia

PHILADELPHIA — INTERNATIONAL EXHIBITION — 1876

THESE Famous BUKKULLA WINES have obtained the Highest Award in Paris, Philadelphia, London, Bordeaux, Melbourne and Sydney, and the Quality is unsurpassed by any in the Australian market. Their absolute Purity, with their delicious Bouquet and Flavour, should be sufficient to recommend them to a place on every table. In the sickroom their presence is invaluable.

N.S.W. — ROYAL AGRICULTURAL SOCIETY OF N.S.W. — GOLD MEDAL

N.S.W. — EATON GRANT & Co. LTD. Champion Prize for SWEET WINE. 4 Varieties 1897-8-9 — GOLD MEDAL

IN 1897, 1898 and 1899, EATON, GRANT & Co., LTD., gained the Champion Prize given by the Royal Agricultural Society of New South Wales, namely: For the Best Four Varieties of Sweet Wine, Red and White, with Gold Medal for 1898 and 1899.

EATON, GRANT & CO., Ltd.

Head Office: HARDIE'S CHAMBERS, HAMILTON STREET.

Bulk Cellars: 157 to 163 TRAFALGAR STREET, ANNANDALE.

Digitized by Google

THE

New Sydenham Society

President: WILLIAM OSLER, M.D., LL.D., F.R.S.
Treasurer: HENRY POWER, Esq., F.R.C.S.
Hon. Sec.: JONATHAN HUTCHINSON, Esq., F.R.S.

ANNUAL SUBSCRIPTION: ONE GUINEA.

ATLAS of CLINICAL MEDICINE, SURGERY and PATHOLOGY

Selected and arranged with a design to afford in as complete a manner as possible **PICTORIAL AIDS TO DIAGNOSIS** in all departments of Practice.

"We urge all members of the profession to subscribe to this valuable Atlas. No one could fail to learn from it, for the eye learns more readily and retains more firmly than the ear. The plates are excellent."—*The Lancet.*

Now Ready, Vol. 178 (being the First of the Series for 1902).

FASC. V., containing **Coxa Vara, Colles' Fracture, Fractures of the Humerus, Dislocations of the Hip, etc.**

Just Issued, Vols. 179-80 (Second and Third of the Series).

FASC. VI. and VII., containing **XANTHELASMA and XANTHOMA; Changes in the Skin Caused by Arsenic; Pemphigus and its Variants, etc.; Fractures and Dislocations; Miscellaneous.**

FASC. VIII. and IX., a double fasciculus (Vols. 181-182), being the concluding volume of the series for 1902, and the first of the series for 1903, **will be issued immediately.**

The Series for 1901 comprises:

THE PATHOLOGY OF THE BLOOD. By **Professor R. Von Limbech.** Translated and in parts epitomised by Dr. Arthur Latham and Dr. Nachbar. Vol. 174.

ATLAS OF CLINICAL MEDICINE, SURGERY and PATHOLOGY.

FASC. I. and II. of **New Series of Clinical Atlas,** containing **FRAMBŒSIAL SYPHILIS (Yaws and Parangi),** with descriptions and a résumé of present knowledge, with comments. Double Part, with 24 plates (16 coloured), containing 50 figures. Vols. 175-6.

FASC. III. and IV.—XANTHELASMA and XANTHOMA, with Special Reference to their Association with Functional and Organic Diseases of the LIVER. Double Part, with 20 plates (7 coloured). Vol. 177.

Full details of the Society's Publications, with Specimen Plates of Atlas, will be sent *post free* to any address on application to the Society's Agent,

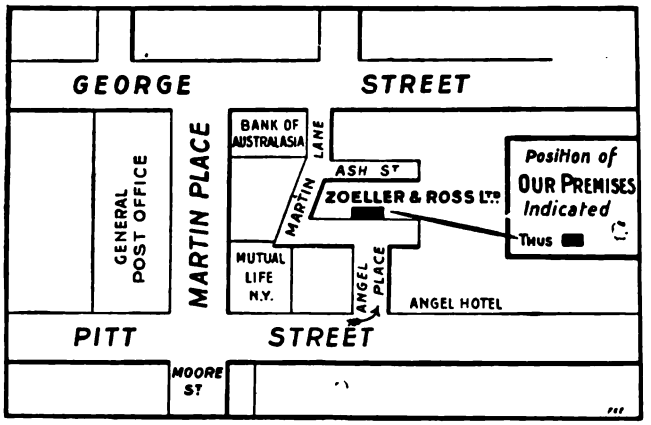
Mr. LEWIS, 136 Gower Street, London, W.C.

Digitized by Google

THIS SMALL PLAN INDICATES THE LOCATION OF



The LARGEST & BEST-EQUIPPED SHOW ROOMS. in this line of Business in Australia.



Everything You Want at Moderate Prices.

ZOELLER & ROSS, Ltd.,

Surgical Instrument and Hospital Supplies, Angel Place, Sydney.

ZIMMER & Co FRANKFORT o/M.

(GERMANY.)





Offer to the trade their

strictly prime **QUININE** brands „Jobst" and „Zimmer"

Quinine Pearls, **Cocaine** standing every test,

Extracts, Fluid Extracts and all other

DRUGS AND CHEMICALS according to price list.

Cable-Address: Jobstzimer Frankfortmain. – A B C Code (1883).

Digitized by Google

Australasian Medical Gazette

THE JOURNAL OF THE

AUSTRALASIAN BRANCHES

OF THE

BRITISH MEDICAL ASSOCIATION,

And the Organ of all the other Medical Societies (excepting one) in Australasia.

Published Monthly. TERMS: Yearly Subscription, £1. Single Number, 2s. New Subscribers may commence at any time.

This Gazette, which is the oldest Intercolonial Medical Journal, has the largest circulation of any Medical Journal in the Southern Hemisphere, and therefore is the best medium for advertising all matters pertaining to the Medical Profession.

All business communications to be addressed to the Manager, 121 Bathurst Street, Sydney, N.S.W.

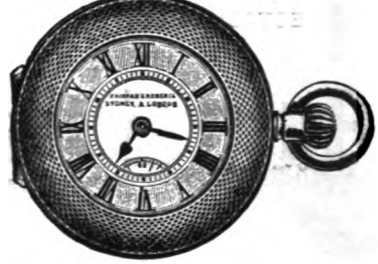
Telephone 2027.

Sole Agents for Europe - Messrs. BAILLIERE, TINDALL & COX.

Digitized by Google

The Lady's "Fx. and R." Watch at £6 6s.

IS a Three-quarter Plate Lever.
HAS 15 Jewels.
HAS a Ruby Roller Jewel.
HAS Solid Heavy 14ct. Gold Case.
HAS Breguet Hair Spring.
HAS Compensated and Adjusted Balance.
IT IS Guaranteed for 15 years, and kept in order for Two years (breakages excepted) without charge.
IT WILL stand hard riding and knocking about.
IT IS made in every style of case.
IT goes with profound accuracy.



Lady's Three-quarter Plate Movement. Solid Gold Case, £6 6s.



Fine Gold and Pearls and Turquoise, 55/-



Pearls and Turquoise, 21/- In Diamonds, £12 12s.



Solid Silver Card Case, Lady's full size, 22/6



Pearl and Diamond, Ruby and Sapphire, 26/6



Diamonds & Whole Pearl, £10 10s



Australian Sapphire and 4 Diamonds, £3 3s. In Choice Whole Pearls, 63/-





We are Manufacturing Jewellers. Direct from factory to wearer; no intermediate profits.

Fairfax & Roberts

VICE-REGAL OPTICIANS

(The Oldest Jewellery House in Sydney)

23 HUNTER ST., SYDNEY.

Knowles Simplex & Knowles Aster Motor Cars

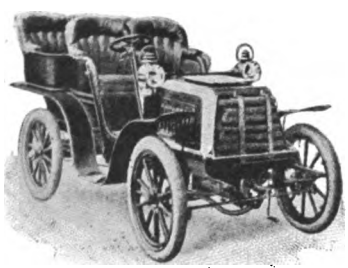
are constructed for Australian use by the most renowned French Maker, and are sold only through us or our authorised Agents.

For the Physician

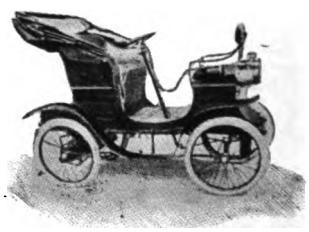
As the man is known by the clothes his wife wears, so the up-to-date professional is distinguished by his mode of conveyance. The slow-moving Dobbin way may have satisfied our grandfathers, but the present generation will prefer the services of a professional who shows progressiveness by adopting a means of serving his patients promptly in case of emergency.

Among the many advantages offered to Doctors, Inspectors, and, in fact, all travelling men, are the following:—

It is always ready for immediate use. The services of a groom are not necessary.
Its owner can attend to his conveyance without carrying about with him the odour of the stable.
It enables its owner to make prompt calls at a moment's notice.
It shows its owner's progressiveness.
Its owner and his occupation will be advertised everywhere.
It costs nothing while not in use.
It is not liable to get out of order, and can be adjusted by anyone.
It is faster and safer than a horse, and is never too tired for travel.
It requires very little attention, and will wear for years.
It will give a greater return than ten times its price spent in other ways.



Knowles Simplex Tonneau.



Knowles Aster Volturette.

The Knowles Automobile & Motor Power Co. Limited

Corner of HUNTER & CASTLEREAGH STREETS, SYDNEY — 316 CITY ROAD, SOUTH MELBOURNE

Write for Lists—Knowles Motor Cars, Knowles Motor Buses, Knowles Motor Cycles, Knowles Motor Launches.

THE KNOWLES MOTOR COMPANY Ltd., Wellington
Sole Agents for New Zealand.

Digitized by Google

EMOL (TRADE MARK) KELEET.

A most delightful, emollient and mildly astringent, absorbent Dusting Powder, of soft and silky texture, vastly superior to any drying or dusting powder hitherto known. Speedily dries and soothes in cases of moist, sensitive, inflamed, irritated, or chafed surface. Softens and smoothes hard and rough skin. A perfect soothing and absorbent powder for toilet purposes, and for Prickly Heat in hot climates. Efficacious in Eczema and Acne. In cases of eruptions in Scarlet Fever and Measles it relieves irritation. It acts as a natural soap, and softens hard water.



This powder is a simple, purified natural product, which on analysis is found to be somewhat allied to superior varieties of Fuller's Earth. It contains a considerable percentage of Steatite, Silica, Alumina, and traces of Calcium Salts and Ferrous Oxide. The value of **Emol-Keleet** in the treatment of skin diseases has already excited great interest amongst the Medical profession. In all cases **Emol-Keleet** is *perfectly harmless.*

SUPPLIED BY ALL CHEMISTS.

FASSETT & JOHNSON, 31 & 32 Snow Hill, London, E.C.

By appointment to the Earl of Hopetoun.

Mr. Bernard Job

Specialist in Massage

(Dowse's Diploma, 1888)

"Rewa," 87 Phillip St., Sydney

Telephone 3050

MASSAGE TAUGHT. Tallerman Treatment successfully carried out for the whole body or a limb.

ROBERT WATSON

Carpenter and Joiner . . . .

Doctors' and Dentists' Fittings a Specialty.

85 Phillip Street,

—— SYDNEY. ——

Telephone 2092.

Miss L. STAFFORD, Certificated Masseuse,

Moffitt Chambers, Elizabeth Street, SYDNEY.

Miss L. STAFFORD has practised Massage in this City for the last five years under the directions of several leading physicians, during which time she has had considerable experience in nervous cases, and the Weir-Mitchell Treatment has claimed her special interest and attention.

The ELECTRIC LIGHT BATH. **The SINUSOIDAL CURRENT.**

The DRY-AIR APPARATUS (Tallerman Treatment.)

INTERRUPTED, CONSTANT and COMBINED CURRENTS.

N.B.—On no account will cases be treated except under medical supervision.

Digitized by Google

MAYER, MELTZER & JACKSON,

By appointment to His Majesty's Government and Royal Navy, University College Hospital, Hospital for Women, etc., etc., London; and many Colonial Hospitals.

Surgical Instruments

Surgical Dressings and Hospital Aseptic Furniture



EAR MASSEUR ENGINE
(ELECTRIC)

Artificial Limbs
Trusses
Abdominal Belts
and all kinds of Appliances for Deformity

LONDON, MELBOURNE and CAPETOWN.

M. M. & J. would draw attention to the fact that they are the ONLY FIRM of English Surgical Instrument Makers having a Branch Business in the Australian States.

Our ILLUSTRATED CATALOGUE of SURGICAL INSTRUMENTS (over 3000 illustrations) post free to Surgeons and Hospitals on application.

233 Lonsdale Street, Melbourne.

Sulphaqua

For the production of
NASCENT SULPHUR
in the ordinary **BATH**
in the treatment of
ECZEMA, PSORIASIS, SCABIES, GOUT, RHEUMATISM, etc.,
and in all cases where Sulphur Baths are required.

The fact that **SULPHAQUA** is prescribed by the Medical Profession practically all over the world is the **surest test of its efficacy.**

SULPHAQUA is packed in boxes of 12 charges suitable for use in an ordinary bath, and also in boxes of 24 charges for Wash-hand or Toilet use.

Obtainable from ELLIOTT BROS., LTD., and the AUSTRALIAN DRUG CO., LTD., SYDNEY; DUERDIN & SAINSBURY, MELBOURNE; TAYLOR & COLLEDGE, LTD., BRISBANE; F. H. FAULDING & COY., PERTH; FELTON, GRIMWADE AND BICKFORD, FREMANTLE; HATTON & LAWS, LAUNCESTON; and *all* leading Wholesale & Retail Houses in Australia.

SULPHAQUA MEDICATED SOAP will be found a valuable adjunct in the treatment of skin diseases, etc.

SULPHAQUA is advertised ONLY to the Medical Profession.

Sole Manufacturers: THE SELTZOGENE PATENT CHARGES CO., St. Helen's, Lanc., England.

Non-irritant——Oxidizable Phosphorous

R. W.

as exhibited in

GARDNER'S HYPO-PHOSPHITES

"CHEMICALLY PURE"

Hypo-phos.: Lime, Soda, Potash, Iron, Manganese, Ammonium.
Elixir Quinia: ALL SEPARATE (also Quin et Ferri combined.)

All in SEPARATE, Single, Syrups, in 8 oz. and 16 oz. bottles.

NOT Compounds. NOT a "Patent."

"CHEMICALLY PURE."

☞ **Note.**—The remedial action, due entirely to the perfection of manipulation and quality of the **"Chemically pure"** Hypo-phosphite Syrups (**Gardner**), will be an agreeable surprise to the Physician.

Samples and literature on application to Australian Agent, 164 Vickery's Chambers, Sydney, N.S.W.

Digitized by Google

For Diseases of the Stomach.

Proved itself for 30 years efficient in

DYSPEPSIA, ACUTE INDIGESTION, MARASMUS, IMPAIRED NUTRITION,

General Debility, Loss of Appetite, Constipation, Morning Sickness, Infantile Diarrhœa, and other Diseases of the Digestive Function.

"One of the certainties in medicine, and in this respect ranks with Quinine."

Dose: 10-15 grains. **"We can confidently recommend it."**—*British Medical Journal.*

Marketed in Powder and Tablets: In 1-oz. bottles, price in London, 4s. 6d. Of all leading Drug Houses and JOHN MORGAN RICHARDS, 46, Holborn Viaduct, London.



R. P. WILLIAMS & CO.

. . . MANUFACTURERS OF . . .

ARTIFICIAL LIMBS | SURGICAL INSTRUMENTS
ORTHOPÆDIC APPLIANCES | SURGICAL BELTS
SURGICAL BOOTS, TRUSSES, &c.

REPAIRING and ELECTRO-PLATING INSTRUMENTS A SPECIALTY.

749 George St. (Opposite Christ Church) **Sydney.**

Mrs. WILLIAMS ATTENDS LADIES' DEPARTMENT. **Telephone 3594.**

ASHBURN HALL, DUNEDIN, NEW ZEALAND

Licensed Private Hospital for Mental Diseases

Excerpts from Report of Inspector-General:

1902.—*"Nothing could be homelier and kindlier than the general effect of the institution."*
1903.—*"The administration is excellent and the attention that is given to each individual case ought to reassure all friends and relatives that the utmost care is exercised in doing everything possible to hasten recovery."*

Situation.—In a bracing climate at an elevation of 950 feet.

Grounds.—Over 100 acres, including a dairy-farm, gardens, orchard and native bush.

Buildings.—Separate blocks permitting classification. No associated dormitories. Bedrooms of acute and feeble patients warmed by hot air. Special sitting-rooms if desired.

Special Features.—A sanatorium of the highest class, authorised to received insane patients under the Act, while uncertifiable cases and persons labouring under the lesser neuroses are admitted as **Voluntary Boarders.** There is a large staff. Carriages are kept for the use of patients, and there is ample provision for occupation and amusement.

Terms.—Adjusted on learning nature and requirements of case

KINDLY ADDRESS ALL COMMUNICATIONS TO **Dr. FRANK HAY, Physician Superintendent.**

Digitized by Google

COFFILL & COMPANY

UNDERTAKERS AND EMBALMERS

Carriage and Drag Proprietors.

Central Office: 812 GEORGE STREET
Telephone 424.

Main Depot: 472-82 HARRIS STREET
Telephone 1160.

Balmain: 118 WESTON ROAD / 7 BEATTIE STREET — Telephone 708

North Sydney: 183 ALFRED STREET
Telephone 335 N.S.

THE ORIGINATORS OF REDUCED FUNERAL CHARGES

ESTD. 1855. **W. H. SIMPSON & SON,** ESTD. 1855.

Importers and Manufacturers of every description of SADDLERY, HARNESS, TRAVELLING and HAND BAGS.

SADDLERS TO HIS EXCELLENCY THE GOVERNOR.

383 GEORGE STREET, SYDNEY.

We can recommend our strong SULKY HARNESS in Black or Tan, Nickel or Brass Mountings, from £5
Our GENT.'S SADDLES, with best Australian or English Knee Pads, from £3.
Our LADIES' SADDLES, with flat or hollow seats, from £4.
DOCTORS' and NURSES' BAG, with removable linings, 20/-.

WE PAY CARRIAGE BY RAIL OR STEAMER ON ALL ORDERS OF £3 VALUE.

HELIDON SPA WATER

IS A NATURAL MINERAL WATER

TELEPHONE 3484.

ALBERT SCHUCH,

. . . MASSEUR . . .

180 PHILLIP ST., SYDNEY.

(Second Door from King Street.)

ELECTRICITY MASSAGE, SWEDISH GYMNASTICS,
ELECTRIC BATHS, DRY HOT AIR BATHS,
ELECTRIC LIGHT BATHS, &c.

Digitized by Google

Rose's Pharmacy

531 George Street, Sydney

(Between Bathurst & Liverpool Streets),

Is Always Open both Day and Night Sundays & Holidays

The Latest Drugs and Chemicals received by every Mail. Telephone 1498.

OXYGEN GAS and DIPHTHERIA ANTITOXIC SERUM (Wellcome) always in stock.

DOCTORS RECOMMEND

GILBEY'S DRY GIN

TANUNDA PURE GRAPE BRANDY

TUCKER & CO., Agents

Hall's Mercantile Agency

(T. M. HALL & CO.) LIMITED.

ESTABLISHED 1855.

Debt Collectors, Trade Assignees, Accountants, etc.

Proprietors of HALL'S MERCANTILE GAZETTE

59 YORK STREET, SYDNEY.

Moneys Collected are paid into a Trust Account. Cheques for amounts collected are forwarded to subscribers on the 10th of the month.

Medical Gymnastic Institute

FOR THE TREATMENT OF SPINAL CURVATURE & OTHER DEFORMITIES

Reuter E. Roth, M.R.C.S.E.

(Late of the Royal Central Gymnastic Institute, Stockholm),

HYDE PARK CHAMBERS,
183 LIVERPOOL STREET, SYDNEY.

INSTRUCTION GIVEN IN MASSAGE.

Physicians remembering to prescribe (Gardner's)

may certainly rely on getting **satisfactory** results.

GARDNER'S SYRUP

Syr. Acidi Hydriodici (Gardner).————Non-irritant Iodine.

IDIOSYNCRASY TO IODID. POTAS. overcome by use of MY Syrup.

One fluid drachm of Syrup equals five grains of Iodid. Potas. (in value of Iodides).

Always prescribe alone on an EMPTY stomach, in ℥i. water.

Samples and Literature on application to Agent, 164 Vickery's Chambers, Sydney, New South Wales.



Digitized by Google



... BAYER'S ...
PHARMACEUTICAL PRODUCTS

TRIONAL - - A most reliable and quickly-acting hypnotic of the Sulfonal group.
Dose: 16 to 20 grains, in a large cup of hot liquid.

LYCETOL - - Tartrate of Piperazine, Anti-Arthritic Uric Solvent. Has a marked effect on the diuresis.
Dose: 16 to 32 grains daily.

IODOTHYRINE The active principle of the thyroid gland. It is most efficacious in Strumous Diseases, Myxœdema, Obesity, Rickets, Psoriasis, Eczema, and Uterine Hæmorrhages.
Dose: 5 grains two to eight times a day for Adults; 5 grains one to three times daily for Children.

ARISTOL - - An Iodine Cicatrisant which is an excellent odourless substitute for Iodoform, and highly recommended for Burns, Wounds, Scrofulous Ulcerations, &c.

EUROPHEN - A perfect substitute for Iodoform. Odourless and non-toxic. Has a covering power five times greater than Iodoform. Especially useful in Ulcus molle et durum.

LOSOPHAN - A Cresoltriiodide, particularly efficacious in the treatment of all kinds of cutaneous disorders caused by animal parasites.

PROTARGOL - A new silver preparation. Most reliable in cases of Gonorrhœa. Antiseptic wound healer. Excellent results in ocular therapeutics. Solutions of ¼ to 2 per cent. Ointments.

TANNIGEN - An almost tasteless intestinal astringent. Most efficacious in Chronic, Acute, and Summer Diarrhœas.
Adult Dose: 8 grains every three hours.

TANNOPINE - (Formerly "**Tannone.**") A new intestinal astringent. Special indications: Tuberculous and Non-Tuberculous Enteritis, Typhus.
Dose: 15 grains three or four times daily.

SALOPHEN - Specific for Influenza, Headache, Migraine, Acute Articular Rheumatism, Chorea, Sciatica.
Dose: 15 grains four to six times daily; in powders, &c.

ANALGEN - - A Specific for Malaria. **Dose: 25 to 30 grains thrice daily.**

HEROIN - - A therapeutic free from secondary effects. **Dose: 0·005 gram. thrice daily.**

ASPIRIN - - Substitute for Salicylic Acid. Does not irritate the mucous coat of the stomach.
Dose: 1 gram. Aspirin, 3 grammes Sugar, 15 grammes Water.

HEDONAL - - A hypnotic in cases of simple, uncomplicated Insomnia.
Dose: 24 to 30 grains.

PHENACETINE-BAYER. **SULFONAL-BAYER.**
PIPERAZINE-BAYER. **SALOL-BAYER.**

SAMPLES AND LITERATURE MAY BE HAD ON APPLICATION TO THE WHOLESALE DEPOT FOR ALL "BAYER'S" PHARMACEUTICAL PRODUCTS:

G. ARNOLD, 191 Clarence St., SYDNEY.

Digitized by Google

THE BRITISH SOMATOSE CO., LTD.

SOMATOSE

Is made from meat, and contains all the nutritive elements of the meat from which it is prepared in an easy assimilable form. Consisting, as it does, only of nutritive material in a form which can be directly absorbed by the organism, **it is a direct nutritive agent, and produces in a very short space of time an increase in the body weight.**

SOMATOSE IS A VERY VALUABLE NUTRITIVE AGENT,

and is of the greatest service in cases of **impaired nutrition, children retarded in development, general debility, loss of blood, exhausting diseases, and as a restorative after operations.** Brilliant results are reported in **chlorosis, anæmia, rickets, in commencing tuberculosis, in the puerperal state,** and especially during **convalescence.** It has been demonstrated that febrile affections run a milder and more rapid course when **Somatose is** given; it is immediately absorbed, and thus the body is protected from waste and loss of power; the duration of convalescence is at the same time sensibly shortened.

Somatose in almost all cases **stimulates the appetite** in a remarkable manner, **and** its use is attended with surprisingly rapid **increase in weight;** in many cases patients have gained 4 lbs. in the first fortnight, and cases in which 10 lbs. have been gained in a month are by no means rare.

SOMATOSE IS A FIRST-CLASS TONIC,

and can always be used with benefit in cases in which it is desirable to stimulate the nutrition, **to increase the body weight, or to strengthen patients or convalescents.**

Somatose is an **odourless, almost tasteless powder,** which is easily soluble in water. It thus differs from all other meat preparations, many of which, either from their repugnant taste or irritant action on the digestive organs, are not tolerated for any length of time.

Profs. **Woodbury** and **Bartley,** of Long Island Hospital: "The cases in which **Somatose was** employed comprised **cancer of the stomach, commencing tubercular disease of the lung, and indigestion.** In cases in which all other food was rejected Somatose was retained, a proof of the ease with which it is digested. It was surprising that in several cases where there was total loss of appetite, after using Somatose for 2 or 3 days the appetite returned. In a case of **Typhoid,** in which all other food was rejected, Somatose was given for some time, and even in this case **appetite returned and the weight increased.**"

Dr. **Weber,** Berlin, has found Somatose of the greatest service in **Chlorosis** and **Anæmia,** both following severe **hemorrhage** and occurring in **convalescence.** When **iron** was given **with Somatose** the results were **particularly striking,** much better than when iron is administered alone. Dr. Weber recommends it warmly in all cases of **convalescence,** as it is absorbed at once, and has also marked stimulative action on the appetite. And many others.

IRON-SOMATOSE (Ferro-Somatose). A first-class tonic, containing the albuminous substances of the meat (albumoses), organically combined with iron.
Special indications: Chlorosis and Anæmia.
Daily Dose: 75 to 150 grains.

MILK-SOMATOSE (Lacto-Somatose). A strength-giving food, containing the albuminous matter (albumoses) of the milk.

For Pamphlets, etc., write to the Depôt for Australasia—

G. ARNOLD, 191 CLARENCE STREET, SYDNEY.

Obtainable from all Wholesale and Retail Chemists.

Digitized by Google

ELECTRO-MASSAGE INSTITUTE

112 HUNTER ST., SYDNEY

Massage, Electricity, Static Electricity, Dry Hot Air (up to 500° F.), Electric, Vapour, Steam, Electric Light, every variety of Medicated Baths are likewise provided for treatment of Nervous, Rheumatic Joint Diseases.

Massage and Electro-Therapeutics Taught.

UNDER THE SUPERVISION OF

SIGNOR H. BAPTISTA, M.D.

A certificated Midwife is on the Staff.

Phthisical and Infectious cases cannot be received.

"ERMELO" NURSING HOME,

Linthorpe Street, Newtown.

This Home being situated in extensive grounds, is specially suitable for Convalescents from the Country, and others requiring a rest or special attention to diet.

FEES: From £2 2s. per week.

Miss GOULD & Sister JOHNSTON

BAY VIEW HOUSE,

An Establishment for the

TREATMENT AND CURE of ... MENTAL DISEASES.

Prospectus and other particulars may also be obtained on application to **L. BRUCK, Sydney**



Licensed by THE GOVERNOR of New South Wales, and under the Medical Direction . of . A. J. VAUSE, M.B., C.M. to whom all communications may be addressed.

TEMPE, NEAR SYDNEY, N. S. WALES.

SURGICAL INSTRUMENTS

OF BEST Sch M Max Arnold Chemnitz **QUALITY.**

MAX ARNOLD'S

Antiseptic Dressings!

G. ARNOLD, 191 Clarence Street, Sydney.

Digitized by Google

A POINT OF IMPORTANCE

A point with regard to Angier's Emulsion that deserves consideration is the fact that it is almost invariably pleasing to patients. Its bland and soothing properties, its palatability and tolerance by delicate stomachs, its ready miscibility with liquids, are all greatly in its favour and tend to please even the most fastidious. Every medical man knows the importance of considering idiosyncracies, and how much more satisfactory it is both for himself and the patient if he can prescribe something really pleasing. Angier's Emulsion rarely disagrees even with the most delicate, sensitive stomach, and it can be administered either undiluted or in any desirable beverage. It is necessary when prescribing to specify Angier's, as otherwise some imitation made with ordinary petroleum may be substituted and disappointment be the result.

FREE SAMPLES TO THE MEDICAL PROFESSION.

THE ANGIER CHEMICAL CO., Limited,

7 BARRACK STREET, SYDNEY, N.S.W.,

LONDON, ENGLAND, and BOSTON, U.S.A.

Digitized by Google

CAPILLA Hair Tonic

Is a medicinal and antiseptic preparation having for its object the eradication of all troubles of the scalp, and is unequalled as a HAIR FOOD. Its sales far exceed those of any other preparation of its kind on the Australian market.

Obtainable at all Chemists 2/6 per bottle.

W. Oliver Richards

SOLE PROPRIETOR AND INVENTOR,

164 Pitt Street, Sydney

R. C. Hagon

MERCHANT TAILOR

129 King St., Sydney

All the most fashionable and exclusive designs in SUITINGS, TROUSERINGS, FANCY VESTINGS, OVERCOATINGS, ETC.

Note.—A SPECIAL LINE of Oxford Grey Vicunas and Cashmeres, *imported direct, for Medical Men's* FROCK COATS AND VESTS.

A VISIT OF INSPECTION WILL BE ESTEEMED.

Patterns and Self-Measure Forms on Application.

By Special Appointment to His Excellency the Governor.

Telephone 1166.

C. M'Lennan & Son

SURGICAL INSTRUMENT, ARTIFICIAL LIMB, TRUSS & BANDAGE MAKERS

to the Sydney, Prince Alfred, St. Vincent, North Shore, Children's Hospitals and Institutes.

120 and 122 BATHURST STREET, SYDNEY

(8 doors from Elizabeth Street.)

Manufacturers and Designers of Apparatus for Bodily Deformities, Arms, Hands, Crutches, etc.

Ladies' Department personally superintended by Mrs. M'Lennan

PURE CALF LYMPH!

VACCINE INSTITUTION,

HASTINGS (HAWKE'S BAY), NEW ZEALAND.

Established 1864 by the late DR. FAULKNER.

Under the patronage of the New Zealand Government for the supply of **PURE CALF LYMPH.**

Medical Superintendent, ROBERT NAIRN, F.R.C.S., L.R.C.P.

THE CALF LYMPH is perfectly pure and reliable, and generally retains its vitality for several weeks.

As a guarantee, any tube used unsuccessfully within a fortnight after its receipt will be replaced on application to the Medical Superintendent.

Charge per tube (well filled), postage free, 2s. 6d.

Agent in Australia—L. BRUCK, SYDNEY.

Under the Patronage of the Medical Profession

Mr. R. F. YOUNG'S School of Physical Culture

(SANDOW SYSTEM)

TATTERSALL'S CHAMBERS, Corner HUNTER & CASTLEREAGH STREETS.

MR. YOUNG has made a special study of **Medical Gymnastics,** and is prepared to wait upon any member of the medical profession and explain the methods adopted by him in treatment of **Spinal Curvature, Weak Lungs, Heart Trouble,** Nerve **Prostration, etc.** Write for pamphlet. Interviews invited.

Nunyara Sanatorium

BELAIR, SOUTH AUSTRALIA

(Seven miles from Adelaide).

For the Open-Air Treatment of Consumption on Nordrach lines.

Situated on the Mt. Lofty Ranges at an altitude of over 1000 feet, and standing in its own grounds of 60 acres. Building specially erected, with all modern improvements. The locality has already been proved as most suitable for the treatment. Under constant Medical Supervision.

New Wing just opened.

Terms (inclusive) - - £4 4s. per week.

Medical Director: ARTHUR H. GAULT, M.D. (London).

Digitized by Google

The attention of the Medical Profession is directed to



One-eighth actual size.

Dr. BRANDT'S MALTED FOOD

and what Government and Public Analysts say concerning its valuable properties as a reliable Food for Infants and Invalids.

A DERNIER RESORT.—It succeeds as a forlorn hope where you have failed with all others.

THE PHARMACY

82 KING STREET, SYDNEY

ESTABLISHED 70 YEARS.

PROPRIETOR:

H. S. BROTHWOOD

Member of the Pharmaceutical Society of New South Wales, Associate of the Pharmaceutical Society of Great Britain.

Special attention is directed to the requirements of the MEDICAL PROFESSION & NURSES

The DISPENSING DEPARTMENT is under the direct supervision of the principal.

The Stock comprises the latest pharmaceutical preparations and newest drugs obtainable. A large assortment of SICK-ROOM NECESSITIES and SURGICAL APPLIANCES.

Digitized by Google

Tel. 3844

Transfer of Practices arranged
Ships' Surgeons provided.
Locum Tenens supplied.
Assistants engaged. Partnerships arranged
Doctors' Books kept and Accounts rendered
periodically, Overdue Accounts collected, and
ALL MEDICAL AGENCY WORK UNDERTAKEN.

Backhouse & Goyder

MEDICAL AGENTS

MARTIN PLACE, SYDNEY

AGENCIES.

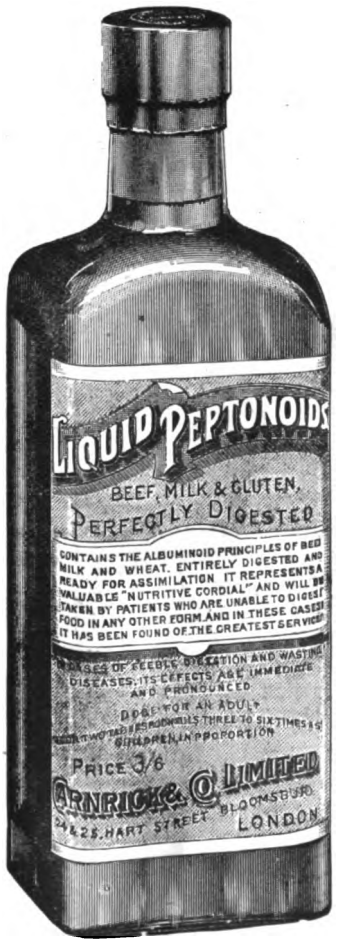
Melbourne: J. E. BARLOW, 49 Elizabeth Street
Brisbane: AUSTEN & CO., Kingsford Chmbrs., 192 Queen St., S.B.
New Zealand: BAKER BROS., Auckland, Christchurch, Wellington, Dunedin, Greymouth.
W. Australia: F. H. BACKHOUSE, Perth
Tasmania: R. J. ROGERS & SON, 92 Collins St., Hobart. F. H. HOLMES, c/o Hutton and Laws, Launceston

Digitized by Google

Carnrick's
Liquid Peptonoids

Is prepared from the Nutritive and Albuminous Constituents of
BEEF, WHEAT & MILK.

Liquid Peptonoids is an absolutely Sterile Food.



Its constituents are thoroughly asepticised by heat during manufacture, and this condition is maintained in Liquid Peptonoids by the addition of sufficient alcohol to ensure its perfect preservation.

The mildly stimulating property of Liquid Peptonoids is of great value in many conditions, and this combination of an Assimilable Food and a **gentle Stimulant** have proved itself most successful.

Liquid Peptonoids supplies **Nutriment** in the most **assimilable form,** its constituents being predigested and converted into soluble form.

Liquid Peptonoids has a marked influence in stimulating the digestive functions, and may be considered a **Peptogen** as well as an Assimilable Food.

As regards Flavour and Odour, Liquid Peptonoids resembles a **Palatable Cordial,** and is well tolerated when other food will not be retained.

Its liquid form ensures **convenient administration.**

"Readily taken and well borne even by a very delicate stomach."—*British Medical Journal.*

CARNRICK & CO., 24 & 25 Hart Street, Bloomsbury, LONDON.

Samples and Literature sent free of charge to Medical Men on application to our Australian Representative,

Mr. JAMES MACKENZIE, 292 Flinders Street, Melbourne.

Digitized by Google

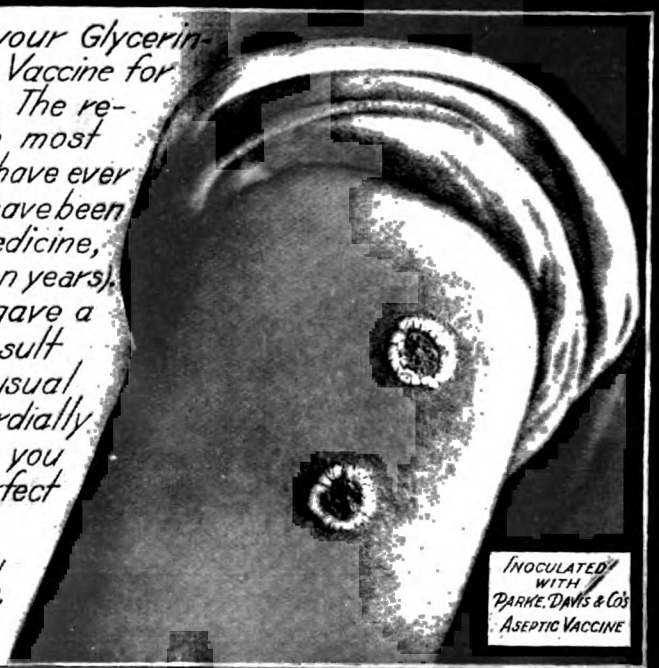
ASEPTIC VACCINE

(GLYCERINATED)

PHYSIOLOGICALLY & BACTERIOLOGICALLY TESTED.

I have used your Glycerinated Aseptic Vaccine for the first time. The results are the most wonderful I have ever seen since I have been practicing medicine, (some nineteen years). Every tube gave a successful result without the usual sore arm. I cordially congratulate you upon your perfect product.

JOHN H. SKILLICORN M.D.
Albany, N.Y.



PURE AND EFFICIENT.

Our Aseptic Vaccine is active and undefiled. It contains no harmful germs, no disease-producing bacteria. Every parcel is subjected to a rigid physiological and bacteriological test before it leaves our laboratories.

We have it, glycerinated, in sealed glass capillary tubes, each holding sufficient for one vaccination, in cases of ten tubes and three tubes, with small rubber bulb to expel the lymph; also in points, in boxes of ten, each point in a sealed glass case.

Always specify "Parke, Davis & Co." when ordering.

LABORATORIES.
Detroit, Michigan, U. S. A.
Walkerville, Ontario, Can.
Hounslow, Eng.

PARKE, DAVIS & CO.

BRANCH HOUSES:
New York, Kansas City, Baltimore, New Orleans, Chicago, London, Montreal, Sydney.

AUSTRALASIAN BRANCH: 6 O'CONNELL ST., SYDNEY.

Digitized by Google



MALTINE

Is prepared from the best, most carefully selected malt, by special processes, carried out with ingeniously designed machinery.

It is a Food containing all the nutriment of malt, so valuable, because so digestible; also an Aid to Digestion by virtue of its proportion of the valuable amylolytic enzyme, Diastase.

MALTINE

The Most Nutritive and Diastasic ·MALT EXTRACT·

MALTINE WITH COD LIVER OIL

By molecular incorporation of a sufficient quantity—30 per cent.—of the best cod liver oil in the best malt extract—"Maltine." It is thus that the difficulty of administering cod liver oil is solved in "Maltine with Cod Liver Oil." It is readily tolerated by the fastidious, the oil is easily digested and is reinforced by a complementary, highly assimilable nutrient.



Maltine c̄ ol. Morrhuae (Maltine Company).

The Maltine Manufacturing Co., Ltd., 24 & 25, Hart Street, Bloomsbury, London

Will be pleased to send specimens free of charge to Medical Men.

Digitized by Google

Wellcome's Medical Diary and Visiting List, 1904 . .

Burroughs Wellcome and Co. beg to announce the publication of the above Diary. It is proposed to send a copy, free of all charge, to every practising physician or surgeon in Australasia in recognition of the many valuable suggestions received from colonial members of the profession. Should any practitioner fail to receive a copy by December 20th, *it will be esteemed a favour if the fact be notified to the Australasian Office—* . . 481, *Kent Street, Sydney* . .

Burroughs Wellcome and Co.

London, Sydney & Cape Town.

[COPYRIGHT] F 227

481 KENT STREET, SYDNEY.

Printed by W. E. Smith, Bridge Street, Sydney, and published by The New South Wales Branch B.M.A. at 121 Bathurst Street, Sydney.

Digitized by Google

Digitized by Google

Digitized by Google


Digitized by Google

Digitized by Google

3 9015 07045 6341



Digitized by Google